

GenCore version 5.1.6
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OM protein - protein search, using sw model

Run on: January 14, 2004, 07:09:10 ; Search time 36.0637 Seconds
(without alignments)
1311.583 Million cell updates/sec

Title: US-09-864-675-4
Perfect score: 1574
Sequence: 1 MRRDPAPGFSMLLFGVSLAC.....KCPVGYTGDRCQQFAMVNFS 298

Scoring table: BLOSUM62
Gapop 10.0 , Gapext 0.5

Searched: 1107863 seqs, 158726573 residues

Total number of hits satisfying chosen parameters: 1107863

Minimum DB seq length: 0
Maximum DB seq length: 2000000000

Post-processing: Minimum Match 0%
Maximum Match 100%
Listing first 45 summaries

Database : A_Geneseq_19Jun03:*
1: /SIDS1/gcgdata/geneseq/geneseqp-embl/AA1980.DAT:*
2: /SIDS1/gcgdata/geneseq/geneseqp-embl/AA1981.DAT:*
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Pred. No. is the number of results predicted by chance to have a
score greater than or equal to the score of the result being printed,

and is derived by analysis of the total score distribution.

SUMMARIES

Result	Query					Description
	No.	Score	Match Length	DB	ID	
1	1574	100.0	298	23	AAU11636	Human Neuregulin-2
2	1547	98.3	754	18	AAW27536	Rat cerebellum der
3	1505	95.6	330	23	AAU11635	Human Neuregulin-2
4	1505	95.6	422	23	ABB07894	Human neuregulin 2
5	1505	95.6	426	23	ABB07893	Human neuregulin 2
6	1478	93.9	330	18	AAW27537	Rat cerebellum der
7	1470	93.4	860	19	AAW63700	Receptor type tyro
8	776	49.3	469	24	ABG71639	Human second splic
9	776	49.3	647	19	AAW48383	Homo sapiens don-1
10	776	49.3	647	24	ABG71644	Human third splice
11	770	48.9	469	19	AAW48382	Homo sapiens don-1
12	736	46.8	407	19	AAW48381	Homo sapiens don-1
13	736	46.8	407	24	ABG71638	Human membrane-bou
14	716	45.5	181	19	AAW48380	Mus musculus don-1
15	716	45.5	181	24	ABG71637	Murine secreted sp
16	716	45.5	605	24	ABG71636	Murine membrane-bo
17	711	45.2	605	19	AAW48379	Mus musculus don-1
18	545	34.6	422	22	AAG67901	Human neuregulin g
19	545	34.6	422	22	AAG67939	Human neuregulin g
20	544	34.6	422	16	AAR67258	Human glial cell g
21	544	34.6	422	17	AAW09371	Human neuregulin G
22	544	34.6	422	17	AAW09372	Human GGF2. Homo
23	544	34.6	422	17	AAR96081	Glial growth facto
24	544	34.6	422	17	AAR87466	Glial growth facto
25	544	34.6	422	17	AAR86628	Mature hGGF2. Hom
26	543	34.5	422	15	AAR55654	GGF-II encoded by
27	543	34.5	422	15	AAR46923	GGF-II encoded by
28	542	34.4	418	23	ABJ00011	Human neuregulin-1
29	542	34.4	418	23	ABJ00049	Human neuregulin-1
30	529	33.6	422	17	AAR87467	Glial growth facto
31	506	32.1	782	22	AAB67751	Amino acid sequenc
32	504	32.0	139	19	AAW48388	Undefined don-1 ho
33	504	32.0	139	24	ABG71645	Don-1 associated p
34	495	31.4	855	22	AAB67757	Amino acid sequenc
35	476	30.2	342	22	AAB67754	Amino acid sequenc
36	473	30.1	182	18	AAW27538	Human cerebellum d
37	473	30.1	323	22	AAB67753	Amino acid sequenc
38	471	29.9	317	22	AAB67752	Amino acid sequenc
39	375	23.8	204	22	AAG67902	Human neuregulin-1
40	375	23.8	204	22	AAG67940	Human neuregulin-1
41	375	23.8	204	23	ABJ00012	Human neuregulin-1
42	375	23.8	204	23	ABJ00050	Human neuregulin-1
43	362.5	23.0	257	13	AAR28538	GGF2BPP3.CDS prote
44	362.5	23.0	257	15	AAR46897	GGF2BPP3. Bos tau
45	362.5	23.0	257	15	AAR55690	GGF2BPP3. Bos tau

ALIGNMENTS

RESULT 1

AAU11636

ID AAU11636 standard; Protein; 298 AA.

XX

AC AAU11636;

XX

DT 12-MAR-2002 (first entry)

XX

DE Human Neuregulin-2beta, NRG-2beta.

XX

KW Human; neuregulin-2; NRG-2alpha; NRG-2beta; mitogenesis;

KW cell survival; cell growth; cell differentiation; erbB receptor;

KW cardiomyopathy; ischaemic damage; cardiac trauma; heart failure;

KW atherosclerosis; vascular lesion; vascular hypertension;

KW degenerative congenital vascular disease; myasthenia gravis;

KW neurodegenerative disorder; peripheral neuropathy;

KW sensory nerve fiber neuropathy; motor fiber neuropathy;

KW sensory nerve fiber neuropathy; multiple sclerosis;

KW amyotrophic lateral sclerosis; spinal muscular atrophy; nerve injury;

KW Alzheimer's disease; Parkinson's disease; cerebellar ataxia;

KW spinal cord injury; tumour; neurofibromatosis; transgenic animal.

XX

OS Homo sapiens.

XX

PN WO200189568-A1.

XX

PD 29-NOV-2001.

XX

PF 23-MAY-2001; 2001WO-US16896.

XX

PR 23-MAY-2000; 2000US-206495P.

XX

PA (CENE-) CENES PHARM INC.

XX

PI Marchionni MA;

XX

DR WPI; 2002-097612/13.

DR N-PSDB; AAS18020.

XX

PT Neuregulin-2 polypeptide and polynucleotide useful for treating

PT multiple sclerosis, spinal muscular atrophy, nerve injury, Alzheimer's

PT disease, by increasing mitogenesis, survival, growth or differentiation

PT of a cell -

XX

PS Claim 53; Fig 9; 79pp; English.

XX

CC The invention relates to a substantially pure neuregulin (NRG)-2

CC polypeptide comprising or consisting of a sequence for human

CC NRG-2alpha or NRG-2beta (clone 2b7) and the polynucleotides encoding

CC the. Also included are a vector expressing the protein, a host cell

CC comprising the vector, a transgenic non-human animal transformed with

CC the vector or having a knockout mutation in one or both NRG-2

CC alleles and an anti-NRG-2 antibody. Analysis of mutations in NRG-2 in an

CC individual is useful for diagnosing an increased likelihood of

CC developing a NRG-2-related disease or condition in a test subject.

CC NRG-2 is useful for increasing the mitogenesis, survival, growth or

CC differentiation of a cell (e.g. a neuronal cell), where the cell

CC expresses an erbB receptor. NRG-2 is useful for treating diseases
 CC and disorders such as cardiomyopathy (preferably degenerative congenital
 CC disease), ischaemic damage, cardiac trauma or heart failure or which
 CC has a condition affecting smooth muscle which include atherosclerosis,
 CC vascular lesion, vascular hypertension, and degenerative congenital
 CC vascular disease, myasthenia gravis, a neurodegenerative disorder,
 CC peripheral neuropathy, a sensory nerve fiber neuropathy, a motor fiber
 CC and a sensory nerve fiber neuropathy, multiple sclerosis, amyotrophic
 CC lateral sclerosis, spinal muscular atrophy, nerve injury, Alzheimer's
 CC disease, Parkinson's disease, cerebellar ataxia, and spinal cord injury.
 CC The antibody is useful for treatment of a tumour comprising inhibiting
 CC proliferation of a tumour cell preferably a glial tumour cell, for
 CC treating of neurofibromatosis by inhibiting glial cell mitogenesis.
 CC The present sequence represents NRG-2beta.

XX

SQ Sequence 298 AA;

Query Match 100.0%; Score 1574; DB 23; Length 298;
 Best Local Similarity 100.0%; Pred. No. 2.5e-112;
 Matches 298; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

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Db	1	MRRDPAPGFSMLLFGVSLACYSPLKSVQDQAYKAPVVVEGKVQGLVPAGGSSSNSTREP	60
Qy	61	PASGRVALVKVLDKWPLRSGGLQREQVISVGSCVPLERNQRYIFFLEPTEQPLVFKTAFE	120
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Qy	121	PLDTNGKNLKKKEVGKILCTDCATRPKLKKMKSQTGQVGEKQSLKCEAAAGNPQPSYRWFK	180
Db	121	PLDTNGKNLKKKEVGKILCTDCATRPKLKKMKSQTGQVGEKQSLKCEAAAGNPQPSYRWFK	180
Qy	181	DGKELNRSRDIRIKYGNGRKNSRLQFNKVKVEDAGEYVCEAENILGKDTVGRGLVNSVS	240
Db	181	DGKELNRSRDIRIKYGNGRKNSRLQFNKVKVEDAGEYVCEAENILGKDTVGRGLVNSVS	240
Qy	241	TTLSSWSGHARKCNETAKSYCVNGGVCYYIEGINQLSCKCPVGYTGDRCCQFAMVNFS	298
Db	241	TTLSSWSGHARKCNETAKSYCVNGGVCYYIEGINQLSCKCPVGYTGDRCCQFAMVNFS	298

RESULT 2

AAW27536

ID AAW27536 standard; Protein; 754 AA.

XX

AC AAW27536;

XX

DT 18-DEC-1997 (first entry)

XX

DE Rat cerebellum derived growth factor 1.

XX

KW Rat; cerebellum derived growth factor; CDGF1; screening; binding;
 KW modulation; erbB type receptor; identification; indication; risk;
 KW proliferation; differentiation; induction; neuron; hyperplasia;
 KW stem cell culture; intracerebral graft; alleviation; repair;
 KW behavioural defect; nervous system; central; peripheral; nerve;

KW prothesis; damage; entubulation; cell survival; treatment;
 KW injury; trauma; ischaemia; ischemia; stroke; infection; disorder;
 KW inflammation; neurodegeneration; disease; Parkinson's;
 KW Huntingdon's; amyotrophic lateral sclerosis; sensory; retina;
 KW spinocerebellar degeneration; multiple sclerosis; neoplasia;
 KW amalignant glioma; medulloblastoma; neuroectodermal tumour.
 XX
 OS Rattus rattus.
 XX
 FH Key Location/Qualifiers
 FT Peptide 1..23
 FT /label= sig_peptide
 FT Peptide 24..754
 FT /label= mat_peptide
 FT Domain 158..228
 FT /label= immunoglobulin_like_domain
 FT Domain 252..297
 FT /label= epidermal_growth_factor_like_domain
 FT Domain 316..338
 FT /label= putative_transmembrane_domain
 FT Cleavage-site 314..315
 FT /label= potential_proteolytic_site
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 FT factor like domain"
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 FT /note= "characteristic cysteine of epidermal growth
 FT factor like domain"
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 PN WO9709425-A1.
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 PD 13-MAR-1997.
 XX
 PF 09-SEP-1996; 96WO-US14484.
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 PR 08-SEP-1995; 95US-0525864.
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Db 121 PVDPNGKNIKKEVGKILCTDCATRPKLKKMKSQTGEVGEKQSLKCEAAAGNPQPSYRWFK 180

Qy 181 DGKELNRSRDIRIKYGNRKN SRLQFNKVKVEDAGEYVCEAENILGKDTVGRRLVNSVS 240
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 Db 181 DGKELNRSRDIRIKYGNRKN SRLQFNKVKVEDAGEYVCEAENILGKDTVGRRLHVNSVS 240
 Qy 241 TTLSSWSGHARKCNETAKSYCVNGGVCYYIEGINQLSCKCPVGYTGDRCCQFAMVNFS 298
 |||||||||||||||||||||||||||||||||||||||||||||
 Db 241 TTLSSWSGHARKCNETAKSYCVNGGVCYYIEGINQLSCKCPVGYTGDRCCQFAMVNFS 298

RESULT 3

AAU11635

ID AAU11635 standard; Protein; 330 AA.

XX

AC AAU11635;

XX

DT 12-MAR-2002 (first entry)

XX

DE Human Neuregulin-2alpha, NRG-2alpha.

XX

KW Human; neuregulin-2; NRG-2alpha; NRG-2beta; mitogenesis;
 KW cell survival; cell growth; cell differentiation; erbB receptor;
 KW cardiomyopathy; ischaemic damage; cardiac trauma; heart failure;
 KW atherosclerosis; vascular lesion; vascular hypertension;
 KW degenerative congenital vascular disease; myasthenia gravis;
 KW neurodegenerative disorder; peripheral neuropathy;
 KW sensory nerve fiber neuropathy; motor fiber neuropathy;
 KW sensory nerve fiber neuropathy; multiple sclerosis;
 KW amyotrophic lateral sclerosis; spinal muscular atrophy; nerve injury;
 KW Alzheimer's disease; Parkinson's disease; cerebellar ataxia;
 KW spinal cord injury; tumour; neurofibromatosis; transgenic animal.

XX

OS Homo sapiens.

XX

PN WO200189568-A1.

XX

PD 29-NOV-2001.

XX

PF 23-MAY-2001; 2001WO-US16896.

XX

PR 23-MAY-2000; 2000US-206495P.

XX

PA (CENE-) CENES PHARM INC.

XX

PI Marchionni MA;

XX

DR WPI; 2002-097612/13.

DR

N-PSDB; AAS18019.

XX

PT Neuregulin-2 polypeptide and polynucleotide useful for treating
 PT multiple sclerosis, spinal muscular atrophy, nerve injury, Alzheimer's
 PT disease, by increasing mitogenesis, survival, growth or differentiation
 PT of a cell -

XX

PS Claim 53; Fig 7; 79pp; English.

XX

CC The invention relates to a substantially pure neuregulin (NRG)-2

CC polypeptide comprising or consisting of a sequence for human
 CC NRG-2alpha or NRG-2beta (clone 2b7) and the polynucleotides encoding
 CC the. Also included are a vector expressing the protein, a host cell
 CC comprising the vector, a transgenic non-human animal transformed with
 CC the vector or having a knockout mutation in one or both NRG-2
 CC alleles and an anti-NRG-2 antibody. Analysis of mutations in NRG-2 in an
 CC individual is useful for diagnosing an increased likelihood of
 CC developing a NRG-2-related disease or condition in a test subject.
 CC NRG-2 is useful for increasing the mitogenesis, survival, growth or
 CC differentiation of a cell (e.g. a neuronal cell), where the cell
 CC expresses an erbB receptor. NRG-2 is useful for treating diseases
 CC and disorders such as cardiomyopathy (preferably degenerative congenital
 CC disease), ischaemic damage, cardiac trauma or heart failure or which
 CC has a condition affecting smooth muscle which include atherosclerosis,
 CC vascular lesion, vascular hypertension, and degenerative congenital
 CC vascular disease, myasthenia gravis, a neurodegenerative disorder,
 CC peripheral neuropathy, a sensory nerve fiber neuropathy, a motor fiber
 CC and a sensory nerve fiber neuropathy, multiple sclerosis, amyotrophic
 CC lateral sclerosis, spinal muscular atrophy, nerve injury, Alzheimer's
 CC disease, Parkinson's disease, cerebellar ataxia, and spinal cord injury.
 CC The antibody is useful for treatment of a tumour comprising inhibiting
 CC proliferation of a tumour cell preferably a glial tumour cell, for
 CC treating of neurofibromatosis by inhibiting glial cell mitogenesis.
 CC The present sequence represents NRG-2alpha.

XX

SQ Sequence 330 AA;

Query Match 95.6%; Score 1505; DB 23; Length 330;

Best Local Similarity 98.6%; Pred. No. 5.3e-107;

Matches 285; Conservative 1; Mismatches 3; Indels 0; Gaps 0;

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Db      1 MRRDPAPGFSMLLFGVSLACYSPLKSVQDQAYKAPVVVEGKVQGLVPAGGSSSNSTREP 60

QY     61 PASGRVALVKVLDKWPLRSGGLQREQVISVGSCVPLERNQRYIFFLEPTEQPLVFKTAFA 120
      |||
Db     61 PASGRVALVKVLDKWPLRSGGLQREQVISVGSCVPLERNQRYIFFLEPTEQPLVFKTAFA 120

QY    121 PLDTNGKNLKKKEVGKILCTDCATRPKLKKMKSQTGQVGEKQSLKCEAAAGNPQPSYRWFK 180
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Db    121 PLDTNGKNLKKKEVGKILCTDCATRPKLKKMKSQTGQVGEKQSLKCEAAAGNPQPSYRWFK 180

QY    181 DGKELNRSRDIRIKYGNGRKNSRLQFNKVKVEDAGEYVCEAENILGKDTVGRGLYVNSVS 240
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Db    181 DGKELNRSRDIRIKYGNGRKNSRLQFNKVKVEDAGEYVCEAENILGKDTVGRGLYVNSVS 240

QY    241 TTLSSWSGHARKCNETAKSYCVNGGVCYYIEGINQLSCKCPVGYTGDRC 289
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Db    241 TTLSSWSGHARKCNETAKSYCVNGGVCYYIEGINQLSCKCPNGFFGQRC 289

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RESULT 4

ABB07894

ID ABB07894 standard; protein; 422 AA.

XX

AC ABB07894;

Db 153 PASGRVALVKVLDKWPLRSGGLQREQVISVGSCVPLERNQRYIFFLEPTEQPLVFKTAFA 212

Qy 121 PLDTNGKNLKKEVGKILCTDCATRPKLKKMKSQTGQVGEKQSLKCEAAAGNPQPSYRWFK 180
 |||

Db 213 PLDTNGKNLKKEVGKILCTDCATRPKLKKMKSQTGQVGEKQSLKCEAAAGNPQPSYRWFK 272

Qy 181 DGKELNRSRDIRIKYGNRKN SRLQFNKVKVEDAGEYVCEAENILGKDTVGRGLYVNSVS 240
 |||

Db 273 DGKELNRSRDIRIKYGNRKN SRLQFNKVKVEDAGEYVCEAENILGKDTVGRGLYVNSVS 332

Qy 241 TTLSSWSGHARKCNETAKSYCVNGGVCYYIEGINQLSCKCPVGYTGDR 289
 ||| : ||

Db 333 TTLSSWSGHARKCNETAKSYCVNGGVCYYIEGINQLSCKCPNGFFGQRC 381

RESULT 5

ABB07893

ID ABB07893 standard; protein; 426 AA.

XX

AC ABB07893;

XX

DT 03-JUL-2002 (first entry)

XX

DE Human neuregulin 2 isoform 5.

XX

KW Human; MUC1; mucin; glycoprotein; cytostatic; cancer; tumour; ECD;

KW extracellular domain; neuregulin 2; isoform.

XX

OS Homo sapiens.

XX

PN WO200222685-A2.

XX

PD 21-MAR-2002.

XX

PF 11-SEP-2001; 2001WO-US28548.

XX

PR 11-SEP-2000; 2000US-231841P.

XX

PA (KUFE/) KUFE D W.

PA (OHNO/) OHNO T.

XX

PI Kufe DW, Ohno T;

XX

DR WPI; 2002-339864/37.

XX

PT Use of a mucin glycoprotein (MUC1) extracellular domain antagonist for

PT manufacturing a medicant that inhibits the proliferation of MUC-1

PT expressing cancer cells and that can treat cancers and reduce tumor

PT growth -

XX

PS Claim 6; Page 53-55; 74pp; English.

XX

CC The invention relates to the use of a MUC1 (mucin glycoprotein)

CC extracellular domain (ECD) antagonist for the manufacture of a medicant

CC to inhibit the proliferation of MUC-1 expressing cancer cells. MUC1 ECD

CC antagonists (optionally combined with a pharmaceutical carrier) can be

CC administered to inhibit proliferation of MUC1-expressing cancer cells,

CC useful to treat cancers e.g. skin cancer, prostate cancer and leukemia,
 CC especially in humans. The method may also be combined with administration
 CC of a chemotherapeutic agent (e.g. an alkylating agent, topoisomerase etc)
 CC or radiation to treat cancer, especially to reduce tumour growth. The
 CC polypeptides are also useful in screening to identify MUC1 ECD
 CC antagonists. The present sequence represents a human neuregulin 2
 CC isoform 5, a fragment of which can bind to MUC1/ECD.

XX

SQ Sequence 426 AA;

Query Match 95.6%; Score 1505; DB 23; Length 426;

Best Local Similarity 98.6%; Pred. No. 7.2e-107;

Matches 285; Conservative 1; Mismatches 3; Indels 0; Gaps 0;

QY	1	MRRDPAPGFSMLLFGVSLACYSPSLKSVQDQAYKAPVVVEGKVQGLVPAGGSSSNSTREP	60
Db	93	MRRDPAPGFSMLLFGVSLACYSPSLKSVQDQAYKAPVVVEGKVQGLVPAGGSSSNSTREP	152
QY	61	PASGRVALVKVLDKWPLRSGGLQREQVISVGS CVPLERNQRYIFFLEPTEQPLVFKTAF	120
Db	153	PASGRVALVKVLDKWPLRSGGLQREQVISVGS CVPLERNQRYIFFLEPTEQPLVFKTAF	212
QY	121	PLDTNGKNLKKKEVGKILCTDCATRPKLKKMKSQTGOVGEKQSLKCEAAAGNPQPSYRWF	180
Db	213	PLDTNGKNLKKKEVGKILCTDCATRPKLKKMKSQTGOVGEKQSLKCEAAAGNPQPSYRWF	272
QY	181	DGKELNRSRDIRIKYGNRKN SRLQFNKVKVEDAGEYVCEAENILGKDTVGRGRLYVNSVS	240
Db	273	DGKELNRSRDIRIKYGNRKN SRLQFNKVKVEDAGEYVCEAENILGKDTVGRGRLYVNSVS	332
QY	241	TTLSSWSGHARKCNETAKSYCVNGGV CYIIEGINQLSCKCPVGYTGDR	289
Db	333	TTLSSWSGHARKCNETAKSYCVNGGV CYIIEGINQLSCKCPNGFFGQRC	381

RESULT 6

AAW27537

ID AAW27537 standard; Protein; 330 AA.

XX

AC AAW27537;

XX

DT 18-DEC-1997 (first entry)

XX

DE Rat cerebellum derived growth factor 2.

XX

KW Rat; cerebellum derived growth factor; CDGF2; screening; binding;

KW modulation; erbB type receptor; identification; indication; risk;

KW proliferation; differentiation; induction; neuron; hyperplasia;

KW stem cell culture; intracerebral graft; alleviation; repair;

KW behavioural defect; nervous system; central; peripheral; nerve;

KW prosthesis; damage; entubulation; cell survival; treatment;

KW injury; trauma; ischaemia; ischemia; stroke; infection; disorder;

KW inflammation; neurodegeneration; disease; Parkinson's;

KW Huntingdon's; amyotrophic lateral sclerosis; sensory; retina;

KW spinocerebellar degeneration; multiple sclerosis; neoplasia;

KW amalignant glioma; medulloblastoma; neuroectodermal tumour.

XX

OS Rattus rattus.
 XX
 FH Key Location/Qualifiers
 FT Peptide 1..23
 FT /label= sig_peptide
 FT Peptide 24..330
 FT /label= mat_peptide
 FT Domain 158..228
 FT /label= immunoglobulin_like_domain
 FT Domain 252..297
 FT /label= epidermal_growth_factor_like_domain
 FT Region 253
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 FT factor like domain"
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 FT Region 254
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 PN WO9709425-A1.
 XX
 PD 13-MAR-1997.
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 PF 09-SEP-1996; 96WO-US14484.
 XX
 PR 08-SEP-1995; 95US-0525864.
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 PA (HARD) HARVARD COLLEGE.
 PA (STRD) UNIV LELAND STANFORD JUNIOR.
 PA (STRD) UNIV LELAND S STANFORD.
 XX
 PI Chang H;
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 DR WPI; 1997-192900/17.
 DR N-PSDB; AAT87923.
 XX
 PT Rat and human cerebellum-derived growth factors - used in the
 PT treatment of neuronal injury and proliferative disorders
 XX
 PS Claim 1; Pages 70-71; 94pp; English.

XX
 CC The present sequence is rat cerebellum derived growth factor 2
 CC (CDGF2), which can be used to screen for modulators of CDGF
 CC binding to erbB type receptors. Identification of a modification or
 CC mutation in a CDGF gene, or aberrant expression of a CDGF gene or
 CC levels of soluble CDGF may be used to indicate the risk of unwanted
 CC cell proliferation or differentiation.
 CC CDGF may be used to induce neuronal differentiation in stem cell
 CC culture, and maintain the integrity of a terminally differentiated
 CC neuronal cell culture, e.g. useful for intracerebral grafting to
 CC alleviate behavioural defects. CDGF may also be used in nerve
 CC prostheses to repair central and peripheral nerve damage, especially
 CC where a crushed or severed axon is entubulated by a prosthetic.
 CC CDGF may also be used to enhance neuronal cell survival in the
 CC central or peripheral nervous system, to treat neurological
 CC conditions associated with nervous system injury, e.g. traumatic,
 CC chemical or vasal injury and deficits such as ischaemia resulting
 CC from stroke, infectious/inflammatory and tumour induced injury,
 CC chronic neurodegenerative disease including Parkinson's and
 CC Huntingdon's, amyotrophic lateral sclerosis, spinocerebellar
 CC degeneration, chronic immunological disease of the nervous system
 CC including multiple sclerosis, disorders of the sensory neurons and
 CC degenerative diseases of the retina. CDGF may also be used to treat
 CC neoplastic or hyperplastic transformations, particularly of the
 CC central nervous system, e.g. amalignant gliomas, medulloblastomas
 CC and neuroectodermal tumours.

XX
 SQ Sequence 330 AA;

Query Match 93.9%; Score 1478; DB 18; Length 330;
 Best Local Similarity 96.2%; Pred. No. 6.1e-105;
 Matches 278; Conservative 5; Mismatches 6; Indels 0; Gaps 0;

QY	1	MRRDPAPGFSMLLFGVSLACYSPSLKSVDQAYKAPVVVEGKVQGLVPAGGSSSNSTREP	60
Db	1	MRRDPAPGFSMLLFGVSLACYSPSLKSVDQAYKAPVVVEGKVQGLAPAGGSSSNSTREP	60
QY	61	PASGRVALVKVLDKWPLRSGGLQREQVISVGSCVPLERNQRYIFFLEPTEQPLVFKTAFA	120
Db	61	PASGRVALVKVLDKWPLRSGGLQREQVISVGSCAPLERNQRYIFFLEPTEQPLVFKTAFA	120
QY	121	PLDTNGKNLKKEVGKILCTDCATRPKLKKMKSQGTQGVGEKQSLKCEAAAGNPQPSYRWFK	180
		: :	
Db	121	PVDPNGKNIKKEVGKILCTDCATRPKLKKMKSQGTGEVGEKQSLKCEAAAGNPQPSYRWFK	180
QY	181	DGKELNRSRDIRIKYGNRKNRSLQFNKVKVEDAGEYVCEAENILGKDTVGRGLVNSVS	240
		:	
Db	181	DGKELNRSRDIRIKYGNRKNRSLQFNKVKVEDAGEYVCEAENILGKDTVGRGLVNSVS	240
QY	241	TTLSSWSGHARKCNETAKSYCVNGGVCYYIEGINQLSCKCPVGYTGDR	289
		:	
Db	241	TTLSSWSGHARKCNETAKSYCVNGGVCYYIEGINQLSCKCPNGFFGQRC	289

RESULT 7
 AAW63700
 ID AAW63700 standard; Protein; 860 AA.

XX
 AC AAW63700;
 XX
 DT 29-SEP-1998 (first entry)
 XX
 DE Receptor type tyrosine kinase ErbB ligand.
 XX
 KW Receptor type tyrosine kinase ErbB; ligand; diagnostic agent;
 KW nervous disease; cancer.
 XX
 OS Rattus sp.
 XX
 PN JP10179166-A.
 XX
 PD 07-JUL-1998.
 XX
 PF 25-DEC-1996; 96JP-0356998.
 XX
 PR 25-DEC-1996; 96JP-0356998.
 XX
 PA (HIGA/) HIGASHIYAMA S.
 XX
 DR WPI; 1998-430952/37.
 DR N-PSDB; AAV43674.
 XX
 PT Gene coding the ligand of the tyrosine kinase ErbB receptor - useful
 PT for diagnosing and treating nervous diseases and cancer
 XX
 PS Claim 1; Pages 9-13; 17pp; Japanese.
 XX
 CC This represents the ligand of receptor type tyrosine kinase ErbB. A
 CC prokaryotic or eukaryotic host cell transformed by a recombinant vector
 CC containing the encoding DNA can be used for the recombinant production of
 CC the protein. The invention provides a method for inhibiting the formation
 CC of the ligand of receptor type tyrosine kinase ErbB in an animal using
 CC an antibody recognizing the protein. The ligand of the tyrosine kinase
 CC ErbB receptor and associated materials can be used for treating or
 CC diagnosing nervous diseases and cancers.
 XX
 SQ Sequence 860 AA;

Query Match 93.4%; Score 1470; DB 19; Length 860;
 Best Local Similarity 95.8%; Pred. No. 8e-104;
 Matches 277; Conservative 5; Mismatches 7; Indels 0; Gaps 0;

Qy 1 MRRDPAPGF SMLLFGVSLACYS PSLKSVQDQAYKAPVVVEGKVQGLVPAGGSSSNSTREP 60
 ||||| ||||||||||||||||||||||||||||||||||||||||
 Db 109 MRRDPAPGSSMLLFGVSLACYS PSLKSVQDQAYKAPVVVEGKVQGLAPAGGSSSNSTREP 168

 Qy 61 PASGRVALVKVL D KWPLRSGGLQREQVISVGSCVPLERNQRYIFFLEPTEQPLVFKTAF 120
 ||||| ||||||||||||||||||||||||||||||||||||||||
 Db 169 PASGRVALVKVL D KWPLRSGGLQREQVISVGSCAPLERNQRYIFFLEPTEQPLVFKTAF 228

 Qy 121 PLDTNGKNL KKEVGKILCTDCATRPKLKKMKSQTGQVGEKQSLKCEAAAGNPQPSYRWF 180
 |:| |||:||||||||||||||||||||||||||:|||||||
 Db 229 PVDPNGKNIKKEVGKILCTDCATRPKLKKMKSQTGEVGEKQSLKCEAAAGNPQPSYRWF 288

Qy 181 DGKELNRSRDIRIKYGNRKNRLQFNKVKVEDAGEYVCEAENILGKDTVGRGLYVNSVS 240
 |||||:||||
 Db 289 DGKELNRSRDIRIKYGNRKNRLQFNKVKVEDAGEYVCEAENILGKDTVGRGLHVNSVS 348
 Qy 241 TTLSSWSGHARKCNETAKSYCVNGGVCYYIEGINQLSCKCPVGYTGDR 289
 |||||:|
 Db 349 TTLSSWSGHARKCNETAKSYCVNGGVCYYIEGINQLSCKCPNGFFGQRC 397

RESULT 8

ABG71639

ID ABG71639 standard; Protein; 469 AA.

XX

AC ABG71639;

XX

DT 14-JAN-2003 (first entry)

XX

DE Human second splice variant of Don-1.

XX

KW Human; Don-1; epidermal growth factor; EGF; neuregulin;
 KW glycoprotein ligand; cell proliferation; cell proliferative disorder;
 KW carcinoma; adenocarcinoma cell; myeloma; cell differentiation;
 KW cell survival; epithelial cell; wound healing; tumour formation;
 KW brain; vulnerary; cytostatic.

XX

OS Homo sapiens.

XX

FH Key Location/Qualifiers

FT Misc-difference 14

FT /note= "Encoded by AA"

XX

PN US2002127594-A1.

XX

PD 12-SEP-2002.

XX

PF 12-MAR-2002; 2002US-0096241.

XX

PR 22-JUN-2000; 2000US-0599789.

XX

PA (GEAR/) GEARING D. P.

PA (BUSF/) BUSFIELD S. J.

XX

PI Gearing DP, Busfield SJ;

XX

DR WPI; 2003-039584/03.

DR N-PSDB; ABS56036.

XX

PT Novel Don-1 polypeptide useful for stimulating proliferation of cells,
 PT for identifying proteins that interact with Don-1, and for regulating
 PT tumour formation and progression in brain -

XX

PS Claim 25; Fig 4; 66pp; English.

XX

CC The present invention relates to the isolation of a novel gene
 CC called Don-1, and alternate splice variants of Don-1, which are
 CC related to epidermal growth factors (EGF) such as neuregulins.
 CC Don-1 polypeptides are glycoprotein ligands. Both murine and human

CC Don-1 sequences are cloned. The mouse Don-1 gene maps to chromosome 18.
 CC Don-1 polypeptides are useful for stimulating proliferation of a cell.
 CC Antibodies to Don-1 polypeptides are useful for detecting Don-1
 CC in a sample. The Don-1 polypeptides are useful for treating and
 CC diagnosing cell proliferative disorders and play a role in the
 CC proliferation of carcinomas e.g. adenocarcinoma, myeloma, in cell
 CC differentiation, proliferation and survival. The polypeptides are
 CC also useful for inhibiting proliferation of adenocarcinoma cells,
 CC for stimulating the proliferation of cells such as epithelial cells
 CC to promote wound healing, for identifying proteins that interact
 CC with Don-1, and for regulating tumour formation and progression in
 CC the brain. The polynucleotide sequences encoding Don-1 may be used
 CC in gene therapy. The present sequence represents human second
 CC splice variant of Don-1.

XX

SQ Sequence 469 AA;

Query Match 49.3%; Score 776; DB 24; Length 469;
 Best Local Similarity 97.3%; Pred. No. 4.3e-51;
 Matches 144; Conservative 1; Mismatches 3; Indels 0; Gaps 0;

Qy 142 ATRPKLKKMKSQTGGVGEKQSLKCEAAAGNPQPSYRWFKDGKELNRSRDIRIKYGNRKN 201
 ||||||||||||||||||||||||||||||||||||||||||||||||||||||||
 Db 31 ATRPKLKKMKSQTGGVGEKQSLKCEAAAGNPQPSYRWFKDGKELNRSRDIRIKYGNRKN 90
 Qy 202 SRLQFNKVKVEDAGEYVCEAENILGKDTVGRGLYVNSVSTTLSSWSGHARKCNETAKSYC 261
 ||||||||||||||||||||||||||||||||||||||||||||||||||||||||
 Db 91 SRLQFNKVKVEDAGEYVCEAENILGKDTVGRGLYVNSVSTTLSSWSGHARKCNETAKSYC 150
 Qy 262 VNGGVCYYIEGINQLSCKCPVGYTGDRC 289
 ||||||||||||||||| : | ||
 Db 151 VNGGVCYYIEGINQLSCKCPNGFFGQRC 178

RESULT 9

AAW48383

ID AAW48383 standard; Protein; 647 AA.

XX

AC AAW48383;

XX

DT 17-AUG-1998 (first entry)

XX

DE Homo sapiens don-1 polypeptide.

XX

KW Murine; don-1 gene; melanoma; treatment; adenocarcinoma;
 KW epithelial cell; proliferation; stimulation; treatment; tumours;
 KW skin; oesophagus; lung; breast; liver; pancreas; colon; prostate;
 KW gastrointestinal tract; uterus; wound healing; transmembrane.

XX

OS Homo sapiens.

XX

FH Key Location/Qualifiers

FT Domain 54..108

FT /note= "Ig domain"

FT Domain 142..178

FT /note= "EGF domain"

FT Domain 203..225

FT /note= "transmembrane domain"
 FT Domain 226..647
 FT /note= "cytoplasmic domain"
 XX
 PN WO9807736-A1.
 XX
 PD 26-FEB-1998.
 XX
 PF 18-AUG-1997; 97WO-US14585.
 XX
 PR 19-NOV-1996; 96US-0753007.
 PR 19-AUG-1996; 96US-0699591.
 XX
 PA (MILL-) MILLENNIUM BIOTHERAPEUTICS INC.
 XX
 PI Busfield SJ, Gearing DP;
 XX
 DR WPI; 1998-169084/15.
 DR N-PSDB; AAV17816.
 XX
 PT Mouse and human don-1 polypeptide(s) - useful for treatment of
 PT melanomas and adenocarcinoma(s), and for wound healing
 XX
 PS Claim 25; Fig 7; 121pp; English.
 XX
 CC The sequence is that encoded by a human don-1 gene splice variant.
 CC Don-1 polypeptides stimulate proliferation of epithelial cells
 CC and thus are implicated in melanomas and adenocarcinomas in which
 CC epithelial cells proliferate out of control. Compounds that
 CC interfere with don-1 mediated cell proliferation can be used
 CC in the treatment of tumours such as melanomas and adenocarcinomas
 CC of the skin, oesophagus, lung, breast, liver, pancreas,
 CC gastrointestinal tract, colon, prostate or uterus. Alternatively,
 CC don-1 polypeptides can be used to stimulate epithelial cell
 CC proliferation, e.g. for wound healing.
 XX
 SQ Sequence 647 AA;

Query Match 49.3%; Score 776; DB 19; Length 647;
 Best Local Similarity 97.3%; Pred. No. 6.3e-51;
 Matches 144; Conservative 1; Mismatches 3; Indels 0; Gaps 0;

Qy 142 ATRPKLKKMKSQTGQVGEKQSLKCEAAAGNPQPSYRWFKDGKELNRSRDIRIKYGNRKN 201
 |||
 Db 31 ATRPKLKKMKSQTGQVGEKQSLKCEAAAGNPQPSYRWFKDGKELNRSRDIRIKYGNRKN 90
 Qy 202 SRLQFNKVKVEDAGEYVCEAENILGKDTVGRGLYVNSVSTTLSSWSGHARKCNETAKSYC 261
 |||
 Db 91 SRLQFNKVKVEDAGEYVCEAENILGKDTVGRGLYVNSVSTTLSSWSGHARKCNETAKSYC 150
 Qy 262 VNGGVCYYIEGINQLSCKCPVGYTGDR 289
 ||| : |||
 Db 151 VNGGVCYYIEGINQLSCKCPNGFFGQRC 178

RESULT 10
 ABG71644

ID ABG71644 standard; Protein; 647 AA.
XX
AC ABG71644;
XX
DT 14-JAN-2003 (first entry)
XX
DE Human third splice variant of Don-1.
XX
KW Human; Don-1; epidermal growth factor; EGF; neuregulin;
KW glycoprotein ligand; cell proliferation; cell proliferative disorder;
KW carcinoma; adenocarcinoma cell; myeloma; cell differentiation;
KW cell survival; epithelial cell; wound healing; tumour formation;
KW brain; vulnerary; cytostatic.
XX
OS Homo sapiens.
XX
FH Key Location/Qualifiers
FT Misc-difference 14
FT /note= "Encoded by AA"
FT Misc-difference 310
FT /note= "Encoded by AGC"
XX
PN US2002127594-A1.
XX
PD 12-SEP-2002.
XX
PF 12-MAR-2002; 2002US-0096241.
XX
PR 22-JUN-2000; 2000US-0599789.
XX
PA (GEAR/) GEARING D P.
PA (BUSF/) BUSFIELD S J.
XX
PI Gearing DP, Busfield SJ;
XX
DR WPI; 2003-039584/03.
DR N-PSDB; ABS56045.
XX
PT Novel Don-1 polypeptide useful for stimulating proliferation of cells,
PT for identifying proteins that interact with Don-1, and for regulating
PT tumour formation and progression in brain -
XX
PS Claim 25; Fig 7; 66pp; English.
XX
CC The present invention relates to the isolation of a novel gene
CC called Don-1, and alternate splice variants of Don-1, which are
CC related to epidermal growth factors (EGF) such as neuregulins.
CC Don-1 polypeptides are glycoprotein ligands. Both murine and human
CC Don-1 sequences are cloned. The mouse Don-1 gene maps to chromosome 18.
CC Don-1 polypeptides are useful for stimulating proliferation of a cell.
CC Antibodies to Don-1 polypeptides are useful for detecting Don-1
CC in a sample. The Don-1 polypeptides are useful for treating and
CC diagnosing cell proliferative disorders and play a role in the
CC proliferation of carcinomas e.g. adenocarcinoma, myeloma, in cell
CC differentiation, proliferation and survival. The polypeptides are
CC also useful for inhibiting proliferation of adenocarcinoma cells,
CC for stimulating the proliferation of cells such as epithelial cells

CC to promote wound healing, for identifying proteins that interact
 CC with Don-1, and for regulating tumour formation and progression in
 CC the brain. The polynucleotide sequences encoding Don-1 may be used
 CC in gene therapy. The present sequence represents human third
 CC splice variant of Don-1.

XX

SQ Sequence 647 AA;

Query Match 49.3%; Score 776; DB 24; Length 647;
 Best Local Similarity 97.3%; Pred. No. 6.3e-51;
 Matches 144; Conservative 1; Mismatches 3; Indels 0; Gaps 0;

Qy 142 ATRPKLKKMKSQTGQVGEKQSLKCEAAAGNPQPSYRWFKDGKELNRSRDIRIKYGNRKN 201
 |||||
 Db 31 ATRPKLKKMKSQTGQVGEKQSLKCEAAAGNPQPSYRWFKDGKELNRSRDIRIKYGNRKN 90
 Qy 202 SRLQFNKVKVEDAGEYVCEAENILGKDTVGRGLYVNSVSTTLSSWSGHARKCNETAKSYC 261
 |||||
 Db 91 SRLQFNKVKVEDAGEYVCEAENILGKDTVGRGLYVNSVSTTLSSWSGHARKCNETAKSYC 150
 Qy 262 VNGGVCYYIEGINQLSCKCPVGYTGDR 289
 ||||| : ||
 Db 151 VNGGVCYYIEGINQLSCKCPNGFFGQRC 178

RESULT 11

AAW48382

ID AAW48382 standard; Protein; 469 AA.

XX

AC AAW48382;

XX

DT 17-AUG-1998 (first entry)

XX

DE Homo sapiens don-1 polypeptide.

XX

KW Murine; don-1 gene; melanoma; treatment; adenocarcinoma;
 KW epithelial cell; proliferation; stimulation; treatment; tumours;
 KW skin; oesophagus; lung; breast; liver; pancreas; colon; prostate;
 KW gastrointestinal tract; uterus; wound healing; transmembrane.

XX

OS Homo sapiens.

XX

Key	Location/Qualifiers
FT Domain	54..108
FT	/note= "Ig domain"
FT Domain	142..178
FT	/note= "EGF domain"
FT Domain	203..225
FT	/note= "transmembrane domain"
FT Domain	226..469
FT	/note= "cytoplasmic domain"

XX

PN WO9807736-A1.

XX

PD 26-FEB-1998.

XX

PF 18-AUG-1997; 97WO-US14585.

XX
 PR 19-NOV-1996; 96US-0753007.
 PR 19-AUG-1996; 96US-0699591.
 XX
 PA (MILL-) MILLENNIUM BIOTHERAPEUTICS INC.
 XX
 PI Busfield SJ, Gearing DP;
 XX
 DR WPI; 1998-169084/15.
 DR N-PSDB; AAV17815.
 XX
 PT Mouse and human don-1 polypeptide(s) - useful for treatment of
 PT melanomas and adenocarcinoma(s), and for wound healing
 XX
 PS Claim 25; Fig 4; 12lpp; English.
 XX
 CC The sequence is that encoded by a human don-1 gene splice variant.
 CC Don-1 polypeptides stimulate proliferation of epithelial cells
 CC and thus are implicated in melanomas and adenocarcinomas in which
 CC epithelial cells proliferate out of control. Compounds that
 CC interfere with don-1 mediated cell proliferation can be used
 CC in the treatment of tumours such as melanomas and adenocarcinomas
 CC of the skin, oesophagus, lung, breast, liver, pancreas,
 CC gastrointestinal tract, colon, prostate or uterus. Alternatively,
 CC don-1 polypeptides can be used to stimulate epithelial cell
 CC proliferation, e.g. for wound healing.
 XX
 SQ Sequence 469 AA;

Query Match 48.9%; Score 770; DB 19; Length 469;
 Best Local Similarity 96.6%; Pred. No. 1.2e-50;
 Matches 143; Conservative 1; Mismatches 4; Indels 0; Gaps 0;

QY 142 ATRPKLKKMKSQTGVGEKQSLKCEAAAGNPQPSYRWFKDGKELNRSRDIRIKYGNRKN 201
 |||
 Db 31 ATRPKLKKMKSQTGVGEKQSLKCEAAAGNPQPSYRWFKDGKELNRSRDIRIKYGNRKN 90
 QY 202 SRLQFNKVKVEDAGEYVCEAENILGKDTVGRGLYVNSVSTTLSSWSGHARKCNETAKSYC 261
 |||
 Db 91 SRLQFNKVKVEDAGEYVCEAENILGKDTVGRGLYVNSVSTTLSSWSGHARKCNETAKSYC 150
 QY 262 VNGGVCYYIEGINQLSCKCPVGYTGDRG 289
 |||
 Db 151 VNGGVCYYIEGINQLSCKCPNGFFAQRC 178

RESULT 12

AAW48381

ID AAW48381 standard; Protein; 407 AA.

XX

AC AAW48381;

XX

DT 17-AUG-1998 (first entry)

XX

DE Homo sapiens don-1 polypeptide.

XX

KW Murine; don-1 gene; melanoma; treatment; adenocarcinoma;

KW epithelial cell; proliferation; stimulation; treatment; tumours;
KW skin; oesophagus; lung; breast; liver; pancreas; colon; prostate;
KW gastrointestinal tract; uterus; wound healing; transmembrane.

XX

OS Homo sapiens.

XX

FH Key Location/Qualifiers

FT Domain 16..70

FT /note= "Ig domain"

FT Domain 104..140

FT /note= "EGF domain"

FT Domain 173..195

FT /note= "transmembrane domain"

FT Domain 196..407

FT /note= "cytoplasmic domain"

FT Region 157..164

FT /note= "juxtamembrane region"

XX

PN WO9807736-A1.

XX

PD 26-FEB-1998.

XX

PF 18-AUG-1997; 97WO-US14585.

XX

PR 19-NOV-1996; 96US-0753007.

PR 19-AUG-1996; 96US-0699591.

XX

PA (MILL-) MILLENNIUM BIOTHERAPEUTICS INC.

XX

PI Busfield SJ, Gearing DP;

XX

DR WPI; 1998-169084/15.

DR N-PSDB; AAV17814.

XX

PT Mouse and human don-1 polypeptide(s) - useful for treatment of

PT melanomas and adenocarcinoma(s), and for wound healing

XX

PS Claim 25; Fig 3; 121pp; English.

XX

CC The sequence is that encoded by a human don-1 gene splice variant.

CC Don-1 polypeptides stimulate proliferation of epithelial cells

CC and thus are implicated in melanomas and adenocarcinomas in which

CC epithelial cells proliferate out of control. Compounds that

CC interfere with don-1 mediated cell proliferation can be used

CC in the treatment of tumours such as melanomas and adenocarcinomas

CC of the skin, oesophagus, lung, breast, liver, pancreas,

CC gastrointestinal tract, colon, prostate or uterus. Alternatively,

CC don-1 polypeptides can be used to stimulate epithelial cell

CC proliferation, e.g. for wound healing.

XX

SQ Sequence 407 AA;

Query Match 46.8%; Score 736; DB 19; Length 407;

Best Local Similarity 97.1%; Pred. No. 4.1e-48;

Matches 136; Conservative 1; Mismatches 3; Indels 0; Gaps 0;

Qy 150 MKSQTGQVGEKQSLKCEAAAGNPQPSYRWFKDGKELNRSRDIRIKYGNRKNRSLQFNKV 209

```

      |||
Db      1 MKSQTGQVGEKQSLKCEAAAGNPQPSYRWFKDGKELNRSRDIRIKYGNRKNRLQFNKV 60
Qy      210 KVEDAGEYVCEAENILGKDTVGRGRLYVNSVSTTLSSWSGHARKCNETAKSYCVNGGVCYY 269
      |||
Db      61 KVEDAGEYVCEAENILGKDTVGRGRLYVNSVSTTLSSWSGHARKCNETAKSYCVNGGVCYY 120
Qy      270 IEGINQLSCKCPVGYTGDR 289
      |||
Db      121 IEGINQLSCKCPNGFFGQRC 140

```

RESULT 13

ABG71638

ID ABG71638 standard; Protein; 407 AA.

XX

AC ABG71638;

XX

DT 14-JAN-2003 (first entry)

XX

DE Human membrane-bound splice variant of Don-1.

XX

KW Human; Don-1; epidermal growth factor; EGF; neuregulin;
 KW glycoprotein ligand; cell proliferation; cell proliferative disorder;
 KW carcinoma; adenocarcinoma cell; myeloma; cell differentiation;
 KW cell survival; epithelial cell; wound healing; tumour formation;
 KW brain; vulnerary; cytostatic.

XX

OS Homo sapiens.

XX

PN US2002127594-A1.

XX

PD 12-SEP-2002.

XX

PF 12-MAR-2002; 2002US-0096241.

XX

PR 22-JUN-2000; 2000US-0599789.

XX

PA (GEAR/) GEARING D P.

PA (BUSF/) BUSFIELD S J.

XX

PI Gearing DP, Busfield SJ;

XX

DR WPI; 2003-039584/03.

DR N-PSDB; ABS56035.

XX

PT Novel Don-1 polypeptide useful for stimulating proliferation of cells,
 PT for identifying proteins that interact with Don-1, and for regulating
 PT tumour formation and progression in brain -

XX

PS Claim 25; Fig 3; 66pp; English.

XX

CC The present invention relates to the isolation of a novel gene
 CC called Don-1, and alternate splice variants of Don-1, which are
 CC related to epidermal growth factors (EGF) such as neuregulins.
 CC Don-1 polypeptides are glycoprotein ligands. Both murine and human
 CC Don-1 sequences are cloned. The mouse Don-1 gene maps to chromosome 18.

CC Don-1 polypeptides are useful for stimulating proliferation of a cell.
 CC Antibodies to Don-1 polypeptides are useful for detecting Don-1
 CC in a sample. The Don-1 polypeptides are useful for treating and
 CC diagnosing cell proliferative disorders and play a role in the
 CC proliferation of carcinomas e.g. adenocarcinoma, myeloma, in cell
 CC differentiation, proliferation and survival. The polypeptides are
 CC also useful for inhibiting proliferation of adenocarcinoma cells,
 CC for stimulating the proliferation of cells such as epithelial cells
 CC to promote wound healing, for identifying proteins that interact
 CC with Don-1, and for regulating tumour formation and progression in
 CC the brain. The polynucleotide sequences encoding Don-1 may be used
 CC in gene therapy. The present sequence represents human membrane-bound
 CC splice variant of Don-1.

XX

SQ Sequence 407 AA;

Query Match 46.8%; Score 736; DB 24; Length 407;
 Best Local Similarity 97.1%; Pred. No. 4.1e-48;
 Matches 136; Conservative 1; Mismatches 3; Indels 0; Gaps 0;

Qy 150 MKSQTGQVGEKQSLKCEAAAGNPQPSYRWFKD GKELNRSRDIRIKYGNRKN SRLQFNKV 209
 |||
 Db 1 MKSQTGQVGEKQSLKCEAAAGNPQPSYRWFKD GKELNRSRDIRIKYGNRKN SRLQFNKV 60
 Qy 210 KVEDAGEYVCEAENILGKDTVGRGLYVNSVSTTLSSWSGHARKCNETAKSYCVNGGVCYY 269
 |||
 Db 61 KVEDAGEYVCEAENILGKDTVGRGLYVNSVSTTLSSWSGHARKCNETAKSYCVNGGVCYY 120
 Qy 270 IEGINQLSCKCPVGYTGDRG 289
 |||
 Db 121 IEGINQLSCKCPNGFFGQRC 140

RESULT 14

AAW48380

ID AAW48380 standard; Protein; 181 AA.

XX

AC AAW48380;

XX

DT 17-AUG-1998 (first entry)

XX

DE Mus musculus don-1 polypeptide.

XX

KW Murine; don-1 gene; melanoma; treatment; adenocarcinoma;

KW epithelial cell; proliferation; stimulation; treatment; tumours;

KW skin; oesophagus; lung; breast; liver; pancreas; colon; prostate;

KW gastrointestinal tract; uterus; wound healing; transmembrane.

XX

OS Mus musculus.

XX

FH Key Location/Qualifiers

FT Domain 104..140

FT /note= "EGF domain"

XX

PN WO9807736-A1.

XX

PD 26-FEB-1998.

```
XX PF 18-AUG-1997; 97WO-US14585.  
XX  
PR 19-NOV-1996; 96US-0753007.  
PR 19-AUG-1996; 96US-0699591.  
XX  
PA (MILL-) MILLENNIUM BIOTHERAPEUTICS INC.  
XX  
PI Busfield SJ, Gearing DP;  
XX  
DR WPI; 1998-169084/15.  
DR N-PSDB; AAV17813.  
XX  
PT Mouse and human don-1 polypeptide(s) - useful for treatment of  
PT melanomas and adenocarcinoma(s), and for wound healing  
XX  
PS Claim 25; Fig 2; 12lpp; English.  
XX  
CC The sequence is that encoded by a murine don-1 gene splice variant.  
CC Don-1 polypeptides stimulate proliferation of epithelial cells  
CC and thus are implicated in melanomas and adenocarcinomas in which  
CC epithelial cells proliferate out of control. Compounds that  
CC interfere with don-1 mediated cell proliferation can be used  
CC in the treatment of tumours such as melanomas and adenocarcinomas  
CC of the skin, oesophagus, lung, breast, liver, pancreas,  
CC gastrointestinal tract, colon, prostate or uterus. Alternatively,  
CC don-1 polypeptides can be used to stimulate epithelial cell  
CC proliferation, e.g. for wound healing.  
XX  
SQ Sequence 181 AA;
```

```
Query Match          45.5%; Score 716; DB 19; Length 181;  
Best Local Similarity 94.3%; Pred. No. 5.2e-47;  
Matches 132; Conservative 4; Mismatches 4; Indels 0; Gaps 0;
```

```
Qy      150 MKSQTGQVG EKQSLKCEAAAGNPQPSYRWFKDGKELNRSRDIRIKYGNGRKNSRLQFNKV 209  
        |||||:|||||  
Db      1   MKSQTGEVGEKQSLKCEAAAGNPQPSYRWFKDGKELNRSRDIRIKYGNVRKNNSRLQFNKV 60
```

```
Qy      210 KVEDAGEYVCEAENILGKD TVRGRLVNSVSTTLSSWSGHARKCNETAKSYCVNGGVCYY 269  
        :|||||  
Db      61 RVEDAGEYVCEAENILGKD TVRGRLHVNSVSTTLSSWSGHARKCNETAKSYCVNGGVCYY 120
```

```
Qy      270 IEGINQLSCKCPVGYTG DRC 289  
        ||||| | : | |  
Db      121 IEGINQLSCKCPNGFFG QRC 140
```


XX
 KW Murine; Don-1; epidermal growth factor; EGF; neuregulin; mouse;
 KW glycoprotein ligand; cell proliferation; cell proliferative disorder;
 KW carcinoma; adenocarcinoma cell; myeloma; cell differentiation;
 KW cell survival; epithelial cell; wound healing; tumour formation;
 KW brain; vulnerary; cytostatic.
 XX
 OS Mus sp.
 XX
 PN US2002127594-A1.
 XX
 PD 12-SEP-2002.
 XX
 PF 12-MAR-2002; 2002US-0096241.
 XX
 PR 22-JUN-2000; 2000US-0599789.
 XX
 PA (GEAR/) GEARING D P.
 PA (BUSF/) BUSFIELD S J.
 XX
 PI Gearing DP, Busfield SJ;
 XX
 DR WPI; 2003-039584/03.
 DR N-PSDB; ABS56034.
 XX
 PT Novel Don-1 polypeptide useful for stimulating proliferation of cells,
 PT for identifying proteins that interact with Don-1, and for regulating
 PT tumour formation and progression in brain -
 XX
 PS Claim 25; Fig 2; 66pp; English.
 XX
 CC The present invention relates to the isolation of a novel gene
 CC called Don-1, and alternate splice variants of Don-1, which are
 CC related to epidermal growth factors (EGF) such as neuregulins.
 CC Don-1 polypeptides are glycoprotein ligands. Both murine and human
 CC Don-1 sequences are cloned. The mouse Don-1 gene maps to chromosome 18.
 CC Don-1 polypeptides are useful for stimulating proliferation of a cell.
 CC Antibodies to Don-1 polypeptides are useful for detecting Don-1
 CC in a sample. The Don-1 polypeptides are useful for treating and
 CC diagnosing cell proliferative disorders and play a role in the
 CC proliferation of carcinomas e.g. adenocarcinoma, myeloma, in cell
 CC differentiation, proliferation and survival. The polypeptides are
 CC also useful for inhibiting proliferation of adenocarcinoma cells,
 CC for stimulating the proliferation of cells such as epithelial cells
 CC to promote wound healing, for identifying proteins that interact
 CC with Don-1, and for regulating tumour formation and progression in
 CC the brain. The polynucleotide sequences encoding Don-1 may be used
 CC in gene therapy. The present sequence represents murine secreted
 CC splice variant of Don-1.
 XX
 SQ Sequence 181 AA;

 Query Match 45.5%; Score 716; DB 24; Length 181;
 Best Local Similarity 94.3%; Pred. No. 5.2e-47;
 Matches 132; Conservative 4; Mismatches 4; Indels 0; Gaps 0;

QY 150 MKSQTGQVGEKQSLKCEAAAGNPQPSYRWFKDGEKELNRSRDIRIKYGNRKNRSLQFNKV 209

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      |||||:|||||||||||||||||||||||||||||||||||||
Db      1 MKSQTGEVGEKQSLKCEAAAGNPQPSYRWFKDGKELNRSRDIRIKYGNVRKNSRLQFNKV 60
Qy      210 KVEDAGEYVCEAENILGKDTVGRGLYVNSVSTTLSSWSGHARKCNETAKSYCVNGGVCYY 269
      :|||||||||||||||||||||:|||||||||||||||||||||
Db      61 RVEDAGEYVCEAENILGKDTVGRGLHVNSVSTTLSSWSGHARKCNETAKSYCVNGGVCYY 120
Qy      270 IEGINQLSCKCPVGYTGDRG 289
      ||||| ||| | : | ||
Db      121 IEGINQLSCKCPNGFFGQRC 140

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Search completed: January 14, 2004, 07:25:05
Job time : 37.0637 secs

GenCore version 5.1.6
Copyright (c) 1993 - 2004 Compugen Ltd.

OM protein - protein search, using sw model

Run on: January 14, 2004, 07:23:41 ; Search time 14.2357 Seconds
(without alignments)
885.707 Million cell updates/sec

Title: US-09-864-675-4
Perfect score: 1574
Sequence: 1 MRRDPAPGFSMLLFGVSLAC.....KCPVGYTGDRCCQFAMVNFS 298

Scoring table: BLOSUM62
Gapop 10.0 , Gapext 0.5

Searched: 328717 seqs, 42310858 residues

Total number of hits satisfying chosen parameters: 328717

Minimum DB seq length: 0
Maximum DB seq length: 2000000000

Post-processing: Minimum Match 0%
Maximum Match 100%
Listing first 45 summaries

Database : Issued_Patents_AA:*
1: /cgn2_6/ptodata/1/iaa/5A_COMB.pep:*
2: /cgn2_6/ptodata/1/iaa/5B_COMB.pep:*
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5: /cgn2_6/ptodata/1/iaa/PCTUS_COMB.pep:*
6: /cgn2_6/ptodata/1/iaa/backfiles1.pep:*

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

Result No.	Score	Query		DB	ID	Description
		Match	Length			
1	1547	98.3	754	2	US-08-525-864A-2	Sequence 2, Appli
2	1478	93.9	330	2	US-08-525-864A-4	Sequence 4, Appli
3	776	49.3	469	3	US-08-753-007A-8	Sequence 8, Appli
4	776	49.3	469	3	US-09-398-496-8	Sequence 8, Appli
5	776	49.3	647	3	US-08-753-007A-32	Sequence 32, Appli
6	776	49.3	647	3	US-09-398-496-32	Sequence 32, Appli
7	736	46.8	407	3	US-08-753-007A-6	Sequence 6, Appli
8	736	46.8	407	3	US-09-398-496-6	Sequence 6, Appli
9	716	45.5	181	3	US-08-753-007A-4	Sequence 4, Appli
10	716	45.5	181	3	US-09-398-496-4	Sequence 4, Appli
11	716	45.5	605	3	US-08-753-007A-2	Sequence 2, Appli

12	716	45.5	605	3	US-09-398-496-2	Sequence 2, Appli
13	545	34.6	411	3	US-08-470-339-189	Sequence 189, App
14	545	34.6	422	4	US-08-467-602-324	Sequence 324, App
15	545	34.6	456	4	US-08-467-602-366	Sequence 366, App
16	545	34.6	601	3	US-08-470-335-233	Sequence 233, App
17	545	34.6	601	4	US-08-467-602-323	Sequence 323, App
18	545	34.6	610	3	US-08-470-335-236	Sequence 236, App
19	545	34.6	610	4	US-08-467-602-332	Sequence 332, App
20	545	34.6	635	4	US-08-467-602-365	Sequence 365, App
21	545	34.6	644	4	US-08-467-602-374	Sequence 374, App
22	545	34.6	818	3	US-08-470-335-234	Sequence 234, App
23	545	34.6	818	4	US-08-467-602-321	Sequence 321, App
24	545	34.6	827	3	US-08-470-335-237	Sequence 237, App
25	545	34.6	827	4	US-08-467-602-333	Sequence 333, App
26	545	34.6	852	4	US-08-467-602-363	Sequence 363, App
27	545	34.6	861	4	US-08-467-602-375	Sequence 375, App
28	545	34.6	865	3	US-08-470-335-235	Sequence 235, App
29	545	34.6	865	4	US-08-467-602-322	Sequence 322, App
30	545	34.6	874	3	US-08-470-335-238	Sequence 238, App
31	545	34.6	874	4	US-08-467-602-334	Sequence 334, App
32	545	34.6	899	4	US-08-467-602-364	Sequence 364, App
33	545	34.6	908	4	US-08-467-602-376	Sequence 376, App
34	544	34.6	422	1	US-08-036-555B-170	Sequence 170, App
35	544	34.6	422	1	US-08-469-569-170	Sequence 170, App
36	544	34.6	422	1	US-08-428-926-3	Sequence 3, Appli
37	544	34.6	422	1	US-08-249-322A-170	Sequence 170, App
38	544	34.6	422	1	US-08-428-927-3	Sequence 3, Appli
39	544	34.6	422	1	US-08-428-298-3	Sequence 3, Appli
40	544	34.6	422	1	US-08-339-517-3	Sequence 3, Appli
41	544	34.6	422	1	US-08-469-526A-170	Sequence 170, App
42	544	34.6	422	2	US-08-734-591A-170	Sequence 170, App
43	544	34.6	422	2	US-08-469-660-170	Sequence 170, App
44	544	34.6	422	3	US-08-341-018-72	Sequence 72, Appl
45	544	34.6	422	3	US-08-470-335-170	Sequence 170, App

ALIGNMENTS

RESULT 1

US-08-525-864A-2

; Sequence 2, Application US/08525864A

; Patent No. 5912326

; GENERAL INFORMATION:

; APPLICANT: Chang, Han

; TITLE OF INVENTION: Cerebellum-derived Growth Factors, and Uses

; TITLE OF INVENTION: Related thereto

; NUMBER OF SEQUENCES: 18

; CORRESPONDENCE ADDRESS:

; ADDRESSEE: LAHIVE & COCKFIELD

; STREET: 28 State Street

; CITY: Boston

; STATE: Massachusetts

; COUNTRY: USA

; ZIP: 02109

; COMPUTER READABLE FORM:

; MEDIUM TYPE: Floppy disk

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; COMPUTER: IBM PC compatible
; OPERATING SYSTEM: PC-DOS/MS-DOS
; SOFTWARE: AscII (text)
; CURRENT APPLICATION DATA:
; APPLICATION NUMBER: US/08/525,864A
; FILING DATE: 8-SEP-1995
; CLASSIFICATION: 530
; ATTORNEY/AGENT INFORMATION:
; NAME: Kara, Catherine J.
; REGISTRATION NUMBER: 41,106
; REFERENCE/DOCKET NUMBER: HUI-017
; TELECOMMUNICATION INFORMATION:
; TELEPHONE: (617)227-7400
; TELEFAX: (617)742-4214
; INFORMATION FOR SEQ ID NO: 2:
; SEQUENCE CHARACTERISTICS:
; LENGTH: 754 amino acids
; TYPE: amino acid
; TOPOLOGY: linear
; MOLECULE TYPE: protein
US-08-525-864A-2

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Query Match          98.3%; Score 1547; DB 2; Length 754;
Best Local Similarity 97.7%; Pred. No. 2.9e-132;
Matches 291; Conservative 4; Mismatches 3; Indels 0; Gaps 0;

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Qy      1 MRRDPAPGFSMLLFGVSLACYSPSLKSVQDQAYKAPVVVEGKVQGLVPAGGSSSNSTREP 60
        |||
Db      1 MRRDPAPGFSMLLFGVSLACYSPSLKSVQDQAYKAPVVVEGKVQGLAPAGGSSSNSTREP 60

Qy      61 PASGRVALVKVLDKWPLRSGGLQREQVISVGSCVPLERNQRYIFFLEPTEQPLVFKTAFA 120
        |||
Db      61 PASGRVALVKVLDKWPLRSGGLQREQVISVGSCAPLERNQRYIFFLEPTEQPLVFKTAFA 120

Qy      121 PLDTNGKNLKKEVGKILCTDCATRPKLKKMKSQTGQVGEKQSLKCEAAAGNPQPSYRWFK 180
        |:| |||:|||||:|||||:|||||:|||||:|||||:|||||:|||||:|||||:|||||
Db      121 PVDPNGKNIKKEVGKILCTDCATRPKLKKMKSQTGEVGEKQSLKCEAAAGNPQPSYRWFK 180

Qy      181 DGKELNRSRDIRIKYGNGRKNSRLQFNKVKVEDAGEYVCEAENILGKDTVGRGLVNSVS 240
        |||
Db      181 DGKELNRSRDIRIKYGNGRKNSRLQFNKVKVEDAGEYVCEAENILGKDTVGRGLHVNSVS 240

Qy      241 TTLSSWSGHARKCNETAKSYCVNGGVCYYIEGINQLSCKCPVGYTGDRCCQFAMVNFS 298
        |||
Db      241 TTLSSWSGHARKCNETAKSYCVNGGVCYYIEGINQLSCKCPVGYTGDRCCQFAMVNFS 298

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RESULT 2

US-08-525-864A-4

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; Sequence 4, Application US/08525864A
; Patent No. 5912326

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GENERAL INFORMATION:

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; APPLICANT: Chang, Han
; TITLE OF INVENTION: Cerebellum-derived Growth Factors, and Uses
; TITLE OF INVENTION: Related thereto
; NUMBER OF SEQUENCES: 18
; CORRESPONDENCE ADDRESS:

```

; ADDRESSEE: LAHIVE & COCKFIELD
 ; STREET: 28 State Street
 ; CITY: Boston
 ; STATE: Massachusetts
 ; COUNTRY: USA
 ; ZIP: 02109
 ; COMPUTER READABLE FORM:
 ; MEDIUM TYPE: Floppy disk
 ; COMPUTER: IBM PC compatible
 ; OPERATING SYSTEM: PC-DOS/MS-DOS
 ; SOFTWARE: AscII (text)
 ; CURRENT APPLICATION DATA:
 ; APPLICATION NUMBER: US/08/525,864A
 ; FILING DATE: 8-SEP-1995
 ; CLASSIFICATION: 530
 ; ATTORNEY/AGENT INFORMATION:
 ; NAME: Kara, Catherine J.
 ; REGISTRATION NUMBER: 41,106
 ; REFERENCE/DOCKET NUMBER: HUI-017
 ; TELECOMMUNICATION INFORMATION:
 ; TELEPHONE: (617)227-7400
 ; TELEFAX: (617)742-4214
 ; INFORMATION FOR SEQ ID NO: 4:
 ; SEQUENCE CHARACTERISTICS:
 ; LENGTH: 330 amino acids
 ; TYPE: amino acid
 ; TOPOLOGY: linear
 ; MOLECULE TYPE: protein
 US-08-525-864A-4

Query Match 93.9%; Score 1478; DB 2; Length 330;
 Best Local Similarity 96.2%; Pred. No. 1.8e-126;
 Matches 278; Conservative 5; Mismatches 6; Indels 0; Gaps 0;

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QY      1 MRRDPAPGFSMLLFGVSLACYSPLKSVQDQAYKAPVVVEGKVQGLVPAGGSSSNSTREP 60
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Db      1 MRRDPAPGFSMLLFGVSLACYSPLKSVQDQAYKAPVVVEGKVQGLAPAGGSSSNSTREP 60

QY      61 PASGRVALVKVLDKWPLRSGGLQREQVISVGSCVPLERNQRYIFFLEPTEQPLVFKTAFA 120
      |||
Db      61 PASGRVALVKVLDKWPLRSGGLQREQVISVGSCAPLERNQRYIFFLEPTEQPLVFKTAFA 120

QY      121 PLDTNGKNLKKKEVGKILCTDCATRPKLKKMKSQTGQVGEKQSLKCEAAAGNPQPSYRWFK 180
      |:| |||:|||||:|||||:|||||:|||||
Db      121 PVDPNGKNIKKEVGKILCTDCATRPKLKKMKSQTGEVGEKQSLKCEAAAGNPQPSYRWFK 180

QY      181 DGKELNRSRDIRIKYGNRKNLSRLQFNKVKVEDAGEYVCEAENILGKDTVVRGRLYVNSVS 240
      |||
Db      181 DGKELNRSRDIRIKYGNRKNLSRLQFNKVKVEDAGEYVCEAENILGKDTVVRGRLLHVNSVS 240

QY      241 TTLSSWSGHARKCNETAKSYCVNGGVCYYIEGINQLSCKCPVGYTGDRG 289
      |||
Db      241 TTLSSWSGHARKCNETAKSYCVNGGVCYYIEGINQLSCKCPNGFFGQRC 289
  
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RESULT 3
 US-08-753-007A-8

; Sequence 8, Application US/08753007A
 ; Patent No. 6074841
 ; GENERAL INFORMATION:
 ; APPLICANT: Gearing, David P.
 ; APPLICANT: Busfield, Samantha J.
 ; TITLE OF INVENTION: DON-1 GENE AND POLYPEPTIDES
 ; TITLE OF INVENTION: AND USES THEREFOR
 ; NUMBER OF SEQUENCES: 33
 ; CORRESPONDENCE ADDRESS:
 ; ADDRESSEE: Fish & Richardson P.C.
 ; STREET: 225 Franklin Street
 ; CITY: Boston
 ; STATE: MA
 ; COUNTRY: US
 ; ZIP: 02110-2804
 ; COMPUTER READABLE FORM:
 ; MEDIUM TYPE: Diskette
 ; COMPUTER: IBM Compatible
 ; OPERATING SYSTEM: DOS
 ; SOFTWARE: FastSEQ Version 2.0
 ; CURRENT APPLICATION DATA:
 ; APPLICATION NUMBER: US/08/753,007A
 ; FILING DATE: 19-NOV-1996
 ; CLASSIFICATION: 536
 ; PRIOR APPLICATION DATA:
 ; APPLICATION NUMBER: 08/699,591
 ; FILING DATE: 19-AUG-1996
 ; ATTORNEY/AGENT INFORMATION:
 ; NAME: Fasse, J. Peter
 ; REGISTRATION NUMBER: 32,983
 ; REFERENCE/DOCKET NUMBER: 07334/022001
 ; TELECOMMUNICATION INFORMATION:
 ; TELEPHONE: 617-542-5070
 ; TELEFAX: 617-542-8906
 ; TELEX:
 ; INFORMATION FOR SEQ ID NO: 8:
 ; SEQUENCE CHARACTERISTICS:
 ; LENGTH: 469 amino acids
 ; TYPE: amino acid
 ; STRANDEDNESS: not relevant
 ; TOPOLOGY: linear
 ; MOLECULE TYPE: protein
 ; FRAGMENT TYPE: internal
 US-08-753-007A-8

Query Match 49.3%; Score 776; DB 3; Length 469;
 Best Local Similarity 97.3%; Pred. No. 2e-62;
 Matches 144; Conservative 1; Mismatches 3; Indels 0; Gaps 0;

QY	142	ATRPKLKKMKSQTGQVGEKQSLKCEAAAGNPQPSYRWFKD GKELNRSRDIRIKYNGRKN	201
Db	31	ATRPKLKKMKSQTGQVGEKQSLKCEAAAGNPQPSYRWFKD GKELNRSRDIRIKYNGRKN	90
QY	202	SRLQFNKVKVEDAGEYVCEAENILGKDTVGRGLYVNSVSTTLSSWSGHARKCNETAKSYC	261
Db	91	SRLQFNKVKVEDAGEYVCEAENILGKDTVGRGLYVNSVSTTLSSWSGHARKCNETAKSYC	150

Qy 142 ATRPKLKKMKSQTGQVGEKQSLKCEAAAGNPQPSYRWFKD GKELNRSRDIRIKYGNRKN 201
 |||||
 Db 31 ATRPKLKKMKSQTGQVGEKQSLKCEAAAGNPQPSYRWFKD GKELNRSRDIRIKYGNRKN 90
 Qy 202 SRLQFNKVKVEDAGEYVCEAENILGKDTVGRGLYVNSVSTTLSSWSGHARKCNETAKSYC 261
 |||||
 Db 91 SRLQFNKVKVEDAGEYVCEAENILGKDTVGRGLYVNSVSTTLSSWSGHARKCNETAKSYC 150
 Qy 262 VNGGVCYYIEGINQLSCKCPVGYTGDR 289
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 Db 151 VNGGVCYYIEGINQLSCKCPNGFFGQRC 178

RESULT 5

US-08-753-007A-32

; Sequence 32, Application US/08753007A

; Patent No. 6074841

; GENERAL INFORMATION:

; APPLICANT: Gearing, David P.

; APPLICANT: Busfield, Samantha J.

; TITLE OF INVENTION: DON-1 GENE AND POLYPEPTIDES

; TITLE OF INVENTION: AND USES THEREFOR

; NUMBER OF SEQUENCES: 33

; CORRESPONDENCE ADDRESS:

; ADDRESSEE: Fish & Richardson P.C.

; STREET: 225 Franklin Street

; CITY: Boston

; STATE: MA

; COUNTRY: US

; ZIP: 02110-2804

; COMPUTER READABLE FORM:

; MEDIUM TYPE: Diskette

; COMPUTER: IBM Compatible

; OPERATING SYSTEM: DOS

; SOFTWARE: FastSEQ Version 2.0

; CURRENT APPLICATION DATA:

; APPLICATION NUMBER: US/08/753,007A

; FILING DATE: 19-NOV-1996

; CLASSIFICATION: 536

; PRIOR APPLICATION DATA:

; APPLICATION NUMBER: 08/699,591

; FILING DATE: 19-AUG-1996

; ATTORNEY/AGENT INFORMATION:

; NAME: Fasse, J. Peter

; REGISTRATION NUMBER: 32,983

; REFERENCE/DOCKET NUMBER: 07334/022001

; TELECOMMUNICATION INFORMATION:

; TELEPHONE: 617-542-5070

; TELEFAX: 617-542-8906

; TELEX:

; INFORMATION FOR SEQ ID NO: 32:

; SEQUENCE CHARACTERISTICS:

; LENGTH: 647 amino acids

; TYPE: amino acid

; STRANDEDNESS: single

; TOPOLOGY: linear

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; MOLECULE TYPE:  protein
; FRAGMENT TYPE:  internal
US-08-753-007A-32

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Query Match 49.3%; Score 776; DB 3; Length 647;
Best Local Similarity 97.3%; Pred. No. 3e-62;
Matches 144; Conservative 1; Mismatches 3; Indels 0; Gaps 0;

Qy	201
Db	90
Qy	261
Db	150
Qy	289
Db	178

RESULT 6

US-09-398-496-32

; Sequence 32, Application US/09398496

; Patent No. 6133423

; GENERAL INFORMATION:

APPLICANT: Gearing, David P.

APPLICANT: Busfield, Samantha J.

TITLE OF INVENTION: DON-1 GENE AND POLYPEPTIDES

1. TITLE OF INVENTION: AND USES THEREFOR

; NUMBER OF SEQUENCES: 33

CORRESPONDENCE ADDRESS:

ADDRESSEE: Fish & Richardson P.C.

STREET: 225 Franklin Street

CITY: Boston

STATE: MA

COUNTRY: US

ZIP: 02110-2804

COMPUTER READABLE FORM:

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; MEDIUM TYPE: Diskette

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COMPUTER: IBM Compatible

OPERATING SYSTEM: DOS

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; SOFTWARE:  FastSEQ Version 2.0

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APPLICATION NUMBER: US/09/398,496

FILING DATE:

CLASSIFICATION:

;
PRIOR APPLICATION DATA:

APPLICATION NUMBER: 08/753,007

FILING DATE: 19-NOV-1996

APPLICATION NUMBER: 08/699,591

FILING DATE: 19-AUG-1996

ATTORNEY/AGENT INFORMATION:

NAME: Fasse, J. Peter

REGISTRATION NUMBER: 32,983

REFERENCE/DOCKET NUMBER: 07334/022001

TELECOMMUNICATION INFORMATION:

; TELEPHONE: 617-542-5070
 ; TELEFAX: 617-542-8906
 ; TELEX:
 ; INFORMATION FOR SEQ ID NO: 32:
 ; SEQUENCE CHARACTERISTICS:
 ; LENGTH: 647 amino acids
 ; TYPE: amino acid
 ; STRANDEDNESS: single
 ; TOPOLOGY: linear
 ; MOLECULE TYPE: protein
 ; FRAGMENT TYPE: internal
 US-09-398-496-32

Query Match 49.3%; Score 776; DB 3; Length 647;
 Best Local Similarity 97.3%; Pred. No. 3e-62;
 Matches 144; Conservative 1; Mismatches 3; Indels 0; Gaps 0;

QY 142 ATRPKLKKMKSQTGQVGEKQSLKCEAAAGNPQPSYRWFKDGKELNRSRDIRIKYGNRKN 201
 ||||||||||||||||||||||||||||||||||||||||||||||||||||||||
 Db 31 ATRPKLKKMKSQTGQVGEKQSLKCEAAAGNPQPSYRWFKDGKELNRSRDIRIKYGNRKN 90
 QY 202 SRLQFNKVKVEDAGEYVCEAENILGKDTVGRGLYVNSVSTTLSSWSGHARKCNETAKSYC 261
 ||||||||||||||||||||||||||||||||||||||||||||||||||||||||
 Db 91 SRLQFNKVKVEDAGEYVCEAENILGKDTVGRGLYVNSVSTTLSSWSGHARKCNETAKSYC 150
 QY 262 VNGGVCYYIEGINQLSCKCPVGYTGDR 289
 ||||||||||||||||| | : | ||
 Db 151 VNGGVCYYIEGINQLSCKCPNGFFGQRC 178

RESULT 7

US-08-753-007A-6

; Sequence 6, Application US/08753007A
 ; Patent No. 6074841
 ; GENERAL INFORMATION:
 ; APPLICANT: Gearing, David P.
 ; APPLICANT: Busfield, Samantha J.
 ; TITLE OF INVENTION: DON-1 GENE AND POLYPEPTIDES
 ; TITLE OF INVENTION: AND USES THEREFOR
 ; NUMBER OF SEQUENCES: 33
 ; CORRESPONDENCE ADDRESS:
 ; ADDRESSEE: Fish & Richardson P.C.
 ; STREET: 225 Franklin Street
 ; CITY: Boston
 ; STATE: MA
 ; COUNTRY: US
 ; ZIP: 02110-2804
 ; COMPUTER READABLE FORM:
 ; MEDIUM TYPE: Diskette
 ; COMPUTER: IBM Compatible
 ; OPERATING SYSTEM: DOS
 ; SOFTWARE: FastSEQ Version 2.0
 ; CURRENT APPLICATION DATA:
 ; APPLICATION NUMBER: US/08/753,007A
 ; FILING DATE: 19-NOV-1996
 ; CLASSIFICATION: 536
 ; PRIOR APPLICATION DATA:

; APPLICATION NUMBER: 08/699,591
 ; FILING DATE: 19-AUG-1996
 ; ATTORNEY/AGENT INFORMATION:
 ; NAME: Fasse, J. Peter
 ; REGISTRATION NUMBER: 32,983
 ; REFERENCE/DOCKET NUMBER: 07334/022001
 ; TELECOMMUNICATION INFORMATION:
 ; TELEPHONE: 617-542-5070
 ; TELEFAX: 617-542-8906
 ; TELEX:
 ; INFORMATION FOR SEQ ID NO: 6:
 ; SEQUENCE CHARACTERISTICS:
 ; LENGTH: 407 amino acids
 ; TYPE: amino acid
 ; STRANDEDNESS: not relevant
 ; TOPOLOGY: linear
 ; MOLECULE TYPE: protein
 ; FRAGMENT TYPE: internal
 US-08-753-007A-6

Query Match 46.8%; Score 736; DB 3; Length 407;
 Best Local Similarity 97.1%; Pred. No. 7.1e-59;
 Matches 136; Conservative 1; Mismatches 3; Indels 0; Gaps 0;

Qy 150 MKSQTGQVGEKQSLKCEAAAGNPQPSYRWFKDGKELNRSRDIRIKYGNRKN SRLQFNKV 209
 ||||||||||||||||||||||||||||||||||||||||||||||||||||||||
 Db 1 MKSQTGQVGEKQSLKCEAAAGNPQPSYRWFKDGKELNRSRDIRIKYGNRKN SRLQFNKV 60
 Qy 210 KVEDAGEYVCEAENILGKDTVGRGLYVNSVSTTLSSWSGHARKCNETAKSYCVNGGVCYY 269
 ||||||||||||||||||||||||||||||||||||||||||||||||||||||||
 Db 61 KVEDAGEYVCEAENILGKDTVGRGLYVNSVSTTLSSWSGHARKCNETAKSYCVNGGVCYY 120
 Qy 270 IEGINQLSCKCPVGYTGDR 289
 ||||||||||||| : |||
 Db 121 IEGINQLSCKCPNGFFGQRC 140

RESULT 8

US-09-398-496-6

; Sequence 6, Application US/09398496
 ; Patent No. 6133423
 ; GENERAL INFORMATION:
 ; APPLICANT: Gearing, David P.
 ; APPLICANT: Busfield, Samantha J.
 ; TITLE OF INVENTION: DON-1 GENE AND POLYPEPTIDES
 ; TITLE OF INVENTION: AND USES THEREFOR
 ; NUMBER OF SEQUENCES: 33
 ; CORRESPONDENCE ADDRESS:
 ; ADDRESSEE: Fish & Richardson P.C.
 ; STREET: 225 Franklin Street
 ; CITY: Boston
 ; STATE: MA
 ; COUNTRY: US
 ; ZIP: 02110-2804
 ; COMPUTER READABLE FORM:
 ; MEDIUM TYPE: Diskette
 ; COMPUTER: IBM Compatible

```

;   OPERATING SYSTEM:  DOS
;   SOFTWARE:  FastSEQ Version 2.0
;   CURRENT APPLICATION DATA:
;   APPLICATION NUMBER:  US/09/398,496
;   FILING DATE:
;   CLASSIFICATION:
;   PRIOR APPLICATION DATA:
;   APPLICATION NUMBER:  08/753,007
;   FILING DATE:  19-NOV-1996
;   APPLICATION NUMBER:  08/699,591
;   FILING DATE:  19-AUG-1996
;   ATTORNEY/AGENT INFORMATION:
;   NAME:  Fasse, J. Peter
;   REGISTRATION NUMBER:  32,983
;   REFERENCE/DOCKET NUMBER:  07334/022001
;   TELECOMMUNICATION INFORMATION:
;   TELEPHONE:  617-542-5070
;   TELEFAX:  617-542-8906
;   TELEX:
;   INFORMATION FOR SEQ ID NO:  6:
;   SEQUENCE CHARACTERISTICS:
;   LENGTH:  407 amino acids
;   TYPE:  amino acid
;   STRANDEDNESS:  not relevant
;   TOPOLOGY:  linear
;   MOLECULE TYPE:  protein
;   FRAGMENT TYPE:  internal
US-09-398-496-6

```

```

Query Match          46.8%;  Score 736;  DB 3;  Length 407;
Best Local Similarity 97.1%;  Pred. No. 7.1e-59;
Matches 136;  Conservative 1;  Mismatches 3;  Indels 0;  Gaps 0;

```

```

Qy      150 MKSQTGQVGEEKQSLKCEAAAGNPQPSYRWFKD GKELNRSRDIRIKYGNRKN SRLQFNKV 209
          |||
Db      1 MKSQTGQVGEEKQSLKCEAAAGNPQPSYRWFKD GKELNRSRDIRIKYGNRKN SRLQFNKV 60

Qy      210 KVEDAGEYVCEAENILGKDTVGRGLYVNSVSTTLSSWSGHARKCNETAKSYCVNGGVCYY 269
          |||
Db      61 KVEDAGEYVCEAENILGKDTVGRGLYVNSVSTTLSSWSGHARKCNETAKSYCVNGGVCYY 120

Qy      270 IEGINQLSCKCPVGYTGDR 289
          |||
Db      121 IEGINQLSCKCPNGFFGQRC 140

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RESULT 9

US-08-753-007A-4

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; Sequence 4, Application US/08753007A
; Patent No. 6074841
; GENERAL INFORMATION:
;   APPLICANT:  Gearing, David P.
;   APPLICANT:  Busfield, Samantha J.
;   TITLE OF INVENTION:  DON-1 GENE AND POLYPEPTIDES
;   TITLE OF INVENTION:  AND USES THEREFOR
;   NUMBER OF SEQUENCES:  33
;   CORRESPONDENCE ADDRESS:

```

```

; ADDRESSEE: Fish & Richardson P.C.
; STREET: 225 Franklin Street
; CITY: Boston
; STATE: MA
; COUNTRY: US
; ZIP: 02110-2804
; COMPUTER READABLE FORM:
; MEDIUM TYPE: Diskette
; COMPUTER: IBM Compatible
; OPERATING SYSTEM: DOS
; SOFTWARE: FastSEQ Version 2.0
; CURRENT APPLICATION DATA:
; APPLICATION NUMBER: US/08/753,007A
; FILING DATE: 19-NOV-1996
; CLASSIFICATION: 536
; PRIOR APPLICATION DATA:
; APPLICATION NUMBER: 08/699,591
; FILING DATE: 19-AUG-1996
; ATTORNEY/AGENT INFORMATION:
; NAME: Fasse, J. Peter
; REGISTRATION NUMBER: 32,983
; REFERENCE/DOCKET NUMBER: 07334/022001
; TELECOMMUNICATION INFORMATION:
; TELEPHONE: 617-542-5070
; TELEFAX: 617-542-8906
; TELEX:
; INFORMATION FOR SEQ ID NO: 4:
; SEQUENCE CHARACTERISTICS:
; LENGTH: 181 amino acids
; TYPE: amino acid
; STRANDEDNESS: not relevant
; TOPOLOGY: linear
; MOLECULE TYPE: protein
; FRAGMENT TYPE: internal
US-08-753-007A-4

```

```

Query Match          45.5%; Score 716; DB 3; Length 181;
Best Local Similarity 94.3%; Pred. No. 1.6e-57;
Matches 132; Conservative 4; Mismatches 4; Indels 0; Gaps 0;

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```

Qy      150 MKSQTGGVGEKQSLKCEAAAGNPQPSYRWFKD GKELNRSRDIRIKYGNRKN SRLQFNKV 209
        |||||:|||||
Db      1  MKSQTGEVGEKQSLKCEAAAGNPQPSYRWFKD GKELNRSRDIRIKYGNVRKN SRLQFNKV 60

Qy      210 KVEDAGEYVCEAENILGKDTVGRGLYVNSVSTTLSSWSGHARKCNETAKSYCVNGGVCYY 269
        :|||||
Db      61 RVEDAGEYVCEAENILGKDTVGRGLHVNSVSTTLSSWSGHARKCNETAKSYCVNGGVCYY 120

Qy      270 IEGINQLSCKCPVGYTGDRC 289
        |||||
Db      121 IEGINQLSCKCPNGFFGQRC 140

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RESULT 10
US-09-398-496-4
; Sequence 4, Application US/09398496
; Patent No. 6133423

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Qy 270 IEGINQLSCKCPVGYTGDRC 289
||||||| | : | ||
Db 121 IEGINQLSCKCPNGFFGQRC 140

RESULT 11

US-08-753-007A-2

; Sequence 2, Application US/08753007A
; Patent No. 6074841
; GENERAL INFORMATION:
; APPLICANT: Gearing, David P.
; APPLICANT: Busfield, Samantha J.
; TITLE OF INVENTION: DON-1 GENE AND POLYPEPTIDES
; TITLE OF INVENTION: AND USES THEREFOR
; NUMBER OF SEQUENCES: 33
; CORRESPONDENCE ADDRESS:
; ADDRESSEE: Fish & Richardson P.C.
; STREET: 225 Franklin Street
; CITY: Boston
; STATE: MA
; COUNTRY: US
; ZIP: 02110-2804
; COMPUTER READABLE FORM:
; MEDIUM TYPE: Diskette
; COMPUTER: IBM Compatible
; OPERATING SYSTEM: DOS
; SOFTWARE: FastSEQ Version 2.0
; CURRENT APPLICATION DATA:
; APPLICATION NUMBER: US/08/753,007A
; FILING DATE: 19-NOV-1996
; CLASSIFICATION: 536
; PRIOR APPLICATION DATA:
; APPLICATION NUMBER: 08/699,591
; FILING DATE: 19-AUG-1996
; ATTORNEY/AGENT INFORMATION:
; NAME: Fasse, J. Peter
; REGISTRATION NUMBER: 32,983
; REFERENCE/DOCKET NUMBER: 07334/022001
; TELECOMMUNICATION INFORMATION:
; TELEPHONE: 617-542-5070
; TELEFAX: 617-542-8906
; TELEX:
; INFORMATION FOR SEQ ID NO: 2:
; SEQUENCE CHARACTERISTICS:
; LENGTH: 605 amino acids
; TYPE: amino acid
; STRANDEDNESS: not relevant
; TOPOLOGY: linear
; MOLECULE TYPE: protein
; FRAGMENT TYPE: internal
US-08-753-007A-2

Query Match 45.5%; Score 716; DB 3; Length 605;
Best Local Similarity 94.3%; Pred. No. 7.9e-57;
Matches 132; Conservative 4; Mismatches 4; Indels 0; Gaps 0;

Qy 150 MKSQTGQVGEKQSLKCEAAAGNPQPSYRWFKDGKELNRSRDIRIKYGNRKN SRLQFNKV 209


```

Db      1 MKSQTGEVGEKQSLKCEAAAGNPQPSYRWFKD GKELNRSRDIRIKYGNVRKNSRLQFNKV 60
Qy      210 KVEDAGEYVCEAENILGKDTVGRGLYVNSVSTTLSSWSGHARKCNETAKSYCVNGGVCYY 269
        :|||||:|||||:|||||:|||||:|||||:|||||:|||||:|||||:|||||:|||||:
Db      61 RVEDAGEYVCEAENILGKDTVGRGLHVNSVSTTLSSWSGHARKCNETAKSYCVNGGVCYY 120
Qy      270 IEGINQLSCKCPVGYTGDRC 289
        |||||:|:|
Db      121 IEGINQLSCKCPNGFFGQRC 140

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RESULT 12

US-09-398-496-2

; Sequence 2, Application US/09398496

; Patent No. 6133423

; GENERAL INFORMATION:

; APPLICANT: Gearing, David P.

; APPLICANT: Busfield, Samantha J.

; TITLE OF INVENTION: DON-1 GENE AND POLYPEPTIDES

; TITLE OF INVENTION: AND USES THEREFOR

; NUMBER OF SEQUENCES: 33

; CORRESPONDENCE ADDRESS:

; ADDRESSEE: Fish & Richardson P.C.

; STREET: 225 Franklin Street

; CITY: Boston

; STATE: MA

; COUNTRY: US

; ZIP: 02110-2804

; COMPUTER READABLE FORM:

; MEDIUM TYPE: Diskette

; COMPUTER: IBM Compatible

; OPERATING SYSTEM: DOS

; SOFTWARE: FastSEQ Version 2.0

; CURRENT APPLICATION DATA:

; APPLICATION NUMBER: US/09/398,496

; FILING DATE:

; CLASSIFICATION:

; PRIOR APPLICATION DATA:

; APPLICATION NUMBER: 08/753,007

; FILING DATE: 19-NOV-1996

; APPLICATION NUMBER: 08/699,591

; FILING DATE: 19-AUG-1996

; ATTORNEY/AGENT INFORMATION:

; NAME: Fasse, J. Peter

; REGISTRATION NUMBER: 32,983

; REFERENCE/DOCKET NUMBER: 07334/022001

; TELECOMMUNICATION INFORMATION:

; TELEPHONE: 617-542-5070

; TELEFAX: 617-542-8906

; TELEX:

; INFORMATION FOR SEQ ID NO: 2:

; SEQUENCE CHARACTERISTICS:

; LENGTH: 605 amino acids

; TYPE: amino acid

; STRANDEDNESS: not relevant

; TOPOLOGY: linear

```

; MOLECULE TYPE:  protein
; FRAGMENT TYPE:  internal
US-09-398-496-2

```

Query Match 45.5%; Score 716; DB 3; Length 605;
Best Local Similarity 94.3%; Pred. No. 7.9e-57;
Matches 132; Conservative 4; Mismatches 4; Indels 0; Gaps 0;

```

Qy      150 MKSQGTGVGEKQSLKCEAAAGNPQPSYRWFKDGKELNRSRDIRIKYGNRKN SRLQFNKV 209
         |||||:|||||:|||||:|||||:|||||:|||||:|||||:|||||:|||||:|||||:|||||:
Db      1   MKSQGTGEVGEKQSLKCEAAAGNPQPSYRWFKDGKELNRSRDIRIKYGNVRKN SRLQFNKV 60

Qy      210 KVEDAGEYVCEAENILGKDTVGRRLYVNSVSTTLSSWSGHARKCNETAKSYCVNGGVCYY 269
         :|||||:|||||:|||||:|||||:|||||:|||||:|||||:|||||:|||||:|||||:
Db      61 RVEDAGEYVCEAENILGKDTVGRRLHVNSVSTTLSSWSGHARKCNETAKSYCVNGGVCYY 120

Qy      270 IEGINQLSCKCPVG YTGDR C 289
         |||||:|||||:|||||
Db      121 IEGINQLSCKCPNGFFGQRC 140

```

RESULT 13

US-08-470-339-189

; Sequence 189, Application US/08470339C

; Patent No. 6232286

; GENERAL INFORMATION:

APPLICANT: GOODEARL, ANDREW

; APPLICANT: STROOBANT, PAUL

: APPLICANT: MINGHETTI, LUISA

: APPLICANT: WATERFIELD, MICHAEL

: APPLICANT: MARCHIONNI, MARK

: APPLICANT: CHEN, MARIO S.

; APPLICANT: HILES, IAN

: TITLE OF INVENTION: GLIAL MITOGENIC FACTORS, THEIR

: TITLE OF INVENTION: PREPARATION AND USE

; FILE REFERENCE: 04585/002008

: CURRENT APPLICATION NUMBER: US/08/470,339C

; CURRENT FILING DATE: 1995-06-06

: EARLIER APPLICATION NUMBER: 08/036,555

: EARLIER FILING DATE: 1993-03-24

: EARLIER APPLICATION NUMBER: 07/940,389

: EARLIER FILING DATE: 1992-09-03

: EARLIER APPLICATION NUMBER: 07/907,138

: EARLIER FILING DATE: 1992-06-30

: EARLIER APPLICATION NUMBER: 07/863,703

EARLIER FILING DATE: 1992-04-03

EARLIER APPLICATION NUMBER: 91 07566.3 GB

EARLIER FILING DATE: 1999-04-10

NUMBER OF SEQ ID NOS: 226

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: SOFTWARE: FastSEO for Windows Version 4.0

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• SEQ ID NO 189

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, SEQ ID NO 109
      LENGTH: 411

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/ LENGTH. 4
. TYPE. PBT

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- ORGANISM: *Homo sapiens*

US-08-470-339-189

Query Match 34.68; Score 545; DB 3; Length 411;

Best Local Similarity 35.6%; Pred. No. 1.7e-41;
Matches 127; Conservative 62; Mismatches 90; Indels 78; Gaps 13;

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Qy      15 GVSLACYS--PSLKSVQDQAYKAPVVVEGKV-----QGLV-----PAGGSSS--NSTRE 59
      | |: ||| ||: |||: | :| ||:||||      || :      | | :      ||
Db      58 GASV-CYSSPPSVGSGVQELAQRAAVVIEGKVHPQRRQQGALDRKAAAAAGEAGAWGGDRE 116

Qy      60 PPASGRVA-----LVKVLDDKWPLRSGGLQ 83
      |||:| |      |||| | :::|||:
Db     117 PPAAGPRALGPPAEPELLAANGTVPSWPTAPVPSAGEPEGEEAPYLVKVHQVWAVKAGGLK 176

Qy      84 REQVISV-----GSCVPLERNQRYIFFLEP-----TEQPLVFKTAFAPLDTNGKN 128
      ::::|      || | : : ||||:| |      : | | : : | ||:| | :|
Db     177 KDSLLTVRLGTWGHFAFPSCGRLKEDSR YIFFMEPDANSTSRAPAAFRASFPPLET-GRN 235

Qy     129 LKKEVGKILCTDCATRPKLKKMKSQTGQVGEKQSLKCEAAAGNPQPSYRWFKDGGKELNRS 188
      ||||| ::|| | | | :||:|||| | | | :|| ::      ::|||:| ||||
Db     236 LKKEVSRVLCKRCALPPRLKEMKSQESAAGSKLVLRCE TSSEYSSLRFKWFKNGNELNRK 295

Qy     189 ---RDIRIKYGNRKNRSLQFNKVVEDAGEYVCEAENILGKDTVRGRLYVNSVSTTLSS 245
      ::|:|: | : | | : | | : | : | : | : | : | : | : | : | : | : |
Db     296 NKPQNIKI QKKPGK--SELRINKASLADSGEYMCKVISKLGND SASANITIVESNATSTS 353

Qy     246 WSG--HARKCNETAKSYCVNGGVVCYYIEGINQLS---CKCPVGYTGDRCQQFAMVNF 297
      :| | || | | :||| || | : : : : | |||| :||| || : | :|
Db     354 TTGTSHLVKCAEKEKTF CVNGGECFMVKDLSNPSRYLCKCPNEFTGDRCQNYVMASF 410

```

RESULT 14

US-08-467-602-324

; Sequence 324, Application US/08467602C

; Patent No. 6444642

; GENERAL INFORMATION:

; APPLICANT: Sklar, Robert

; APPLICANT: Marchionni, Mark

; APPLICANT: Gwynne, David I.

; TITLE OF INVENTION: METHODS FOR TREATING MUSCLE DISEASES AND

; TITLE OF INVENTION: DISORDERS

; FILE REFERENCE: 04585/028003

; CURRENT APPLICATION NUMBER: US/08/467,602C

; CURRENT FILING DATE: 1995-06-06

; EARLIER APPLICATION NUMBER: 08/209,204

; EARLIER FILING DATE: 1994-03-08

; EARLIER APPLICATION NUMBER: 08/059,022

; EARLIER FILING DATE: 1993-05-06

; NUMBER OF SEQ ID NOS: 420

; SOFTWARE: FastSEQ for Windows Version 4.0

; SEQ ID NO 324

; LENGTH: 422

; TYPE: PRT

; ORGANISM: Homo sapiens

US-08-467-602-324

Query Match 34.6%; Score 545; DB 4; Length 422;

Best Local Similarity 35.6%; Pred. No. 1.7e-41;

Matches 127; Conservative 62; Mismatches 90; Indels 78; Gaps 13;

Qy 15 GVSLACYS--PSLKSVQDQAYKAPVVVEGKV-----QGLV-----PAGGSSS--NSTRE 59
 | |: ||| |: |||: |: | ||: ||| | | : | | : ||
 Db 58 GASV-CYSSPPSVGSGVQELAQRAAVVIEGKVHPQRRQQGALDRKAAAAAGEAGAWGGDRE 116
 Qy 60 PPASGRVA-----LVKVLDKWPLRSGLQ 83
 |||:| | ||| | : ::|||:
 Db 117 PPAAGPRALGPPAAEEPLLAANGTVPSWPTAPVPSAGEPGEEAPYLVKVHVQVWAVKAGGLK 176
 Qy 84 REQVISV-----GSCVPLERNQRYIFFLEP-----TEQPLVFKTAFAPLDTNGKN 128
 :: ::| | | : : ||||: || : | | : : | ||: | |:
 Db 177 KDSLLTVRLGTWGHAPAFPSCGRLKEDSRYIFFMEPDANSTSRAPAAFRASFPPLET-GRN 235
 Qy 129 LKKEVGKILCTDCATRPKLKMKMSQTGQVGEKQSLKCEAAAGNPQPSYRWFKDGKELNRS 188
 ||||| ::|| | | | : ||: ||| | | | : || : : |||: | |||
 Db 236 LKKEVSRVLCKRCALPPRLKEMKSQESAAGSKLVLCETSSSEYSSLRFKWFKNGNELNRK 295
 Qy 189 ---RDIRIKYGNRKNRLQFNKVKVEDAGEYVCEAENILGKDTVGRGLYVNSVSTTLSS 245
 ::|:|: | : | | : | : |||: | : | | : : : | : |
 Db 296 NKPQNIKIQKKPGK--SELRINKASLADSGEYMCKVISKLGNDASANITIVESNATSTS 353
 Qy 246 WSG--HARKCNETAKSYCVNGGVCCYYIEGINQLS---CKCPVGYTGDRCCQFAMVNF 297
 :| | || | | : |||| | : : : | ||| : ||||| : | : |
 Db 354 TTGTSHLVKCAEKEKTFVNGGECFMVKDLSNPSRYLCKCPNEFTGDRCCQNYVMASF 410

RESULT 15

US-08-467-602-366

; Sequence 366, Application US/08467602C

; Patent No. 6444642

; GENERAL INFORMATION:

; APPLICANT: Sklar, Robert

; APPLICANT: Marchionni, Mark

; APPLICANT: Gwynne, David I.

; TITLE OF INVENTION: METHODS FOR TREATING MUSCLE DISEASES AND

; TITLE OF INVENTION: DISORDERS

; FILE REFERENCE: 04585/028003

; CURRENT APPLICATION NUMBER: US/08/467,602C

; CURRENT FILING DATE: 1995-06-06

; EARLIER APPLICATION NUMBER: 08/209,204

; EARLIER FILING DATE: 1994-03-08

; EARLIER APPLICATION NUMBER: 08/059,022

; EARLIER FILING DATE: 1993-05-06

; NUMBER OF SEQ ID NOS: 420

; SOFTWARE: FastSEQ for Windows Version 4.0

; SEQ ID NO 366

; LENGTH: 456

; TYPE: PRT

; ORGANISM: Homo sapiens

; FEATURE:

; NAME/KEY: VARIANT

; LOCATION: (34)...(34)

; OTHER INFORMATION: Xaa is any amino acid

US-08-467-602-366

Query Match 34.6%; Score 545; DB 4; Length 456;

Best Local Similarity 35.6%; Pred. No. 1.9e-41;

Matches 127; Conservative 62; Mismatches 90; Indels 78; Gaps 13;

Qy	15	GVSLACYs--PSLKSVDQAYKAPVWVEGKV-----QGLV-----PAGGSSs--NSTRE	59
Db	92	GASV-CYSSPPSVGSGVQELAQRAAVVIEGKVHPQRRQOGALDRKAAAAAGEAGAWGGDRE	150
Qy	60	PPASGRVA-----LVKVLDKWPLRSGGLQ	83
Db	151	PPAAGPRALGPPAEEPLLAANGTVPSWPTAPVPSAGEPGEEAPYLVKVHQVWAVKAGGLK	210
Qy	84	REQVISV-----GSCVPLERNQRYIFFLEP-----TEQPLVFKTAFAPLDTNGKN	128
Db	211	KDSLTLTVRLGTWGHPAFPSCGRLKEDSRYIFFMEPDANSTSRAPAAFRASFPPLET-GRN	269
Qy	129	LKKEVGKILCTDCATRPKLKKMKSQTGQVG EKQSLKCEAAAGNPQPSYRWFKDGKELNRS	188
Db	270	LKKEVSRVLCKRCALPPRLKEMKSQESAAGSKLVLRCETSSEYSSLRFKWFKNGNELNRK	329
Qy	189	---RDIRIKYGNGRKNSRLQFNKVKVEDAGEYVCEAENILGKDTVGRGLYVNSVSTTLSS	245
Db	330	NKPQNIKIQQKPGK--SELRINKASLADSGEYMCKVISKLGNDASANITIVESNATSTS	387
Qy	246	WSG--HARKCNETAKSYCVNGGVCYYIEGINQLS---CKCPVGYTGDRCCQFAMVNF	297
Db	388	TTGTSHLVKCAEKEKTFVCVNGGECFMVKDLSNP SRYLCKCPNEFTGDRCONYVMASF	444

Search completed: January 14, 2004, 07:28:17
Job time : 14.2357 secs

GenCore version 5.1.6
Copyright (c) 1993 - 2004 Compugen Ltd.

OM protein - protein search, using sw model

Run on: January 14, 2004, 07:27:01 ; Search time 27.5223 Seconds
(without alignments)
2214.038 Million cell updates/sec

Title: US-09-864-675-4
Perfect score: 1574
Sequence: 1 MRRDPAPGFSMLLFGVSLAC.....KCPVGYTGDRCQQFAMVNFS 298

Scoring table: BLOSUM62
Gapop 10.0 , Gapext 0.5

Searched: 762491 seqs, 204481190 residues

Total number of hits satisfying chosen parameters: 762491

Minimum DB seq length: 0
Maximum DB seq length: 2000000000

Post-processing: Minimum Match 0%
Maximum Match 100%
Listing first 45 summaries

Database : Published Applications_AA:*
1: /cgn2_6/ptodata/1/pubpaa/US07_PUBCOMB.pep:*
2: /cgn2_6/ptodata/1/pubpaa/PCT_NEW_PUB.pep:*
3: /cgn2_6/ptodata/1/pubpaa/US06_NEW_PUB.pep:*
4: /cgn2_6/ptodata/1/pubpaa/US06_PUBCOMB.pep:*
5: /cgn2_6/ptodata/1/pubpaa/US07_NEW_PUB.pep:*
6: /cgn2_6/ptodata/1/pubpaa/PCTUS_PUBCOMB.pep:*
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8: /cgn2_6/ptodata/1/pubpaa/US08_PUBCOMB.pep:*
9: /cgn2_6/ptodata/1/pubpaa/US09A_PUBCOMB.pep:*
10: /cgn2_6/ptodata/1/pubpaa/US09B_PUBCOMB.pep:*
11: /cgn2_6/ptodata/1/pubpaa/US09C_PUBCOMB.pep:*
12: /cgn2_6/ptodata/1/pubpaa/US09_NEW_PUB.pep:*
13: /cgn2_6/ptodata/1/pubpaa/US10A_PUBCOMB.pep:*
14: /cgn2_6/ptodata/1/pubpaa/US10B_PUBCOMB.pep:*
15: /cgn2_6/ptodata/1/pubpaa/US10C_PUBCOMB.pep:*
16: /cgn2_6/ptodata/1/pubpaa/US10_NEW_PUB.pep:*
17: /cgn2_6/ptodata/1/pubpaa/US60_NEW_PUB.pep:*
18: /cgn2_6/ptodata/1/pubpaa/US60_PUBCOMB.pep:*

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

Result	Query					
No.	Score	Match	Length	DB	ID	Description

1	1574	100.0	298	9	US-09-864-675-4	Sequence 4, Appli
2	1505	95.6	330	9	US-09-864-675-2	Sequence 2, Appli
3	776	49.3	469	14	US-10-096-241-8	Sequence 8, Appli
4	776	49.3	647	14	US-10-096-241-32	Sequence 32, Appl
5	736	46.8	407	14	US-10-096-241-6	Sequence 6, Appli
6	716	45.5	181	14	US-10-096-241-4	Sequence 4, Appli
7	716	45.5	605	14	US-10-096-241-2	Sequence 2, Appli
8	544	34.6	422	7	US-08-736-019-170	Sequence 170, App
9	542	34.4	418	9	US-09-795-668-3	Sequence 3, Appli
10	542	34.4	418	9	US-09-795-686-3	Sequence 3, Appli
11	542	34.4	418	10	US-09-946-807-3	Sequence 3, Appli
12	504	32.0	139	14	US-10-096-241-33	Sequence 33, Appl
13	375	23.8	204	9	US-09-795-668-4	Sequence 4, Appli
14	375	23.8	204	9	US-09-795-686-4	Sequence 4, Appli
15	375	23.8	204	10	US-09-946-807-4	Sequence 4, Appli
16	325	20.6	501	15	US-10-290-578-10	Sequence 10, Appl
17	325	20.6	768	9	US-09-773-517-11	Sequence 11, Appl
18	325	20.6	768	9	US-09-792-025-11	Sequence 11, Appl
19	325	20.6	768	9	US-09-849-868-11	Sequence 11, Appl
20	325	20.6	768	10	US-09-808-602-85	Sequence 85, Appl
21	325	20.6	768	12	US-10-453-183-11	Sequence 11, Appl
22	325	20.6	768	15	US-10-290-578-2	Sequence 2, Appli
23	317	20.1	192	9	US-09-795-668-2	Sequence 2, Appli
24	317	20.1	192	9	US-09-795-686-2	Sequence 2, Appli
25	317	20.1	192	10	US-09-946-807-2	Sequence 2, Appli
26	306.5	19.5	239	9	US-09-795-668-18	Sequence 18, Appl
27	306.5	19.5	239	9	US-09-795-686-18	Sequence 18, Appl
28	306.5	19.5	239	10	US-09-946-807-18	Sequence 18, Appl
29	306.5	19.5	629	9	US-09-795-668-14	Sequence 14, Appl
30	306.5	19.5	629	9	US-09-795-686-14	Sequence 14, Appl
31	306.5	19.5	629	10	US-09-946-807-14	Sequence 14, Appl
32	306.5	19.5	637	9	US-09-795-668-13	Sequence 13, Appl
33	306.5	19.5	637	9	US-09-795-686-13	Sequence 13, Appl
34	306.5	19.5	637	10	US-09-946-807-13	Sequence 13, Appl
35	306.5	19.5	645	14	US-10-096-241-10	Sequence 10, Appl
36	305.5	19.4	241	9	US-09-773-517-7	Sequence 7, Appli
37	305.5	19.4	241	9	US-09-792-025-7	Sequence 7, Appli
38	305.5	19.4	241	9	US-09-849-868-7	Sequence 7, Appli
39	305.5	19.4	241	12	US-10-453-183-7	Sequence 7, Appli
40	305.5	19.4	420	9	US-09-773-517-9	Sequence 9, Appli
41	305.5	19.4	420	9	US-09-792-025-9	Sequence 9, Appli
42	305.5	19.4	420	9	US-09-849-868-9	Sequence 9, Appli
43	305.5	19.4	420	12	US-10-453-183-9	Sequence 9, Appli
44	305.5	19.4	637	9	US-09-773-517-5	Sequence 5, Appli
45	305.5	19.4	637	9	US-09-792-025-5	Sequence 5, Appli

ALIGNMENTS

RESULT 1

US-09-864-675-4

; Sequence 4, Application US/09864675

; Patent No. US20020081286A1

; GENERAL INFORMATION:

; APPLICANT: Marchionni, Mark

```
; TITLE OF INVENTION: NRG-2 NUCLEIC ACID MOLECULES,
; TITLE OF INVENTION: POLYPEPTIDES, AND DIAGNOSTIC AND THERAPEUTIC METHODS
; FILE REFERENCE: 04585/049002
; CURRENT APPLICATION NUMBER: US/09/864,675
; CURRENT FILING DATE: 2001-05-23
; PRIOR APPLICATION NUMBER: US 60/206,495
; PRIOR FILING DATE: 2000-05-23
; NUMBER OF SEQ ID NOS: 18
; SOFTWARE: FastSEQ for Windows Version 4.0
; SEQ ID NO 4
; LENGTH: 298
; TYPE: PRT
; ORGANISM: Homo sapiens
US-09-864-675-4
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Query Match          100.0%; Score 1574; DB 9; Length 298;
Best Local Similarity 100.0%; Pred. No. 1e-121;
Matches 298; Conservative 0; Mismatches 0; Indels 0; Gaps 0;
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Qy      1 MRRDPAPGFSMLLFGVSLACYSPLKSVQDQAYKAPVVVEGKVQGLVPAGGSSSNSTREP 60
        |||
Db      1 MRRDPAPGFSMLLFGVSLACYSPLKSVQDQAYKAPVVVEGKVQGLVPAGGSSSNSTREP 60

Qy     61 PASGRVALVKVLDKWPLRSGGLQREQVISVGSCVPLERNQRYIFFLEPTEQPLVFKTAFA 120
        |||
Db     61 PASGRVALVKVLDKWPLRSGGLQREQVISVGSCVPLERNQRYIFFLEPTEQPLVFKTAFA 120

Qy    121 PLDTNGKNLKKKEVGKILCTDCATRPKLKKMKSQTGQVGEKQSLKCEAAAGNPQPSYRWFK 180
        |||
Db    121 PLDTNGKNLKKKEVGKILCTDCATRPKLKKMKSQTGQVGEKQSLKCEAAAGNPQPSYRWFK 180

Qy    181 DGKELNRSRDIRIKYGNRKN SRLQFNKVKVEDAGEYVCEAENILGKDTVGRGLYVNSVS 240
        |||
Db    181 DGKELNRSRDIRIKYGNRKN SRLQFNKVKVEDAGEYVCEAENILGKDTVGRGLYVNSVS 240

Qy    241 TTLSSWSGHARKCNETAKSYCVNGGVCYYIEGINQLSCKCPVGYTGDRCCQFAMVNFS 298
        |||
Db    241 TTLSSWSGHARKCNETAKSYCVNGGVCYYIEGINQLSCKCPVGYTGDRCCQFAMVNFS 298
```

RESULT 2

US-09-864-675-2

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; Sequence 2, Application US/09864675
; Patent No. US20020081286A1
; GENERAL INFORMATION:
; APPLICANT: Marchionni, Mark
; TITLE OF INVENTION: NRG-2 NUCLEIC ACID MOLECULES,
; TITLE OF INVENTION: POLYPEPTIDES, AND DIAGNOSTIC AND THERAPEUTIC METHODS
; FILE REFERENCE: 04585/049002
; CURRENT APPLICATION NUMBER: US/09/864,675
; CURRENT FILING DATE: 2001-05-23
; PRIOR APPLICATION NUMBER: US 60/206,495
; PRIOR FILING DATE: 2000-05-23
; NUMBER OF SEQ ID NOS: 18
; SOFTWARE: FastSEQ for Windows Version 4.0
; SEQ ID NO 2
; LENGTH: 330
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; TYPE: PRT
; ORGANISM: Homo sapiens
US-09-864-675-2

Query Match 95.6%; Score 1505; DB 9; Length 330;
Best Local Similarity 98.6%; Pred. No. 5.6e-116;
Matches 285; Conservative 1; Mismatches 3; Indels 0; Gaps 0;

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Qy      1 MRRDPAPGFSMLLFGVSLACYSPSLKSVQDQAYKAPVVVEGKVQGLVPAGGSSSNSTREP 60
          |||
Db      1 MRRDPAPGFSMLLFGVSLACYSPSLKSVQDQAYKAPVVVEGKVQGLVPAGGSSSNSTREP 60

Qy     61 PASGRVALVKVLDKWPLRSGGLQREQVISVGSCVPLERNQRYIFFLEPTEQPLVFKTAFA 120
          |||
Db     61 PASGRVALVKVLDKWPLRSGGLQREQVISVGSCVPLERNQRYIFFLEPTEQPLVFKTAFA 120

Qy    121 PLDTNGKNLKKEVGKILCTDCATRPKLKKMKSQTGQVGEKQSLKCEAAAGNPQPSYRWFK 180
          |||
Db    121 PLDTNGKNLKKEVGKILCTDCATRPKLKKMKSQTGQVGEKQSLKCEAAAGNPQPSYRWFK 180

Qy    181 DGKELNRSRDIRIKYGNRKN SRLQFNKVKVEDAGEYVCEAENILGKDTVGRGLVNSVS 240
          |||
Db    181 DGKELNRSRDIRIKYGNRKN SRLQFNKVKVEDAGEYVCEAENILGKDTVGRGLVNSVS 240

Qy    241 TTLSSWSGHARKCNETAKSYCVNGGVCYYIEGINQLSCKCPVGYTGDRC 289
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Db    241 TTLSSWSGHARKCNETAKSYCVNGGVCYYIEGINQLSCKCPNGFFGQRC 289
```

RESULT 3

US-10-096-241-8

; Sequence 8, Application US/10096241

; Publication No. US20020127594A1

; GENERAL INFORMATION:

; APPLICANT: Gearing, David P.

; Busfield, Samantha J.

; TITLE OF INVENTION: DON-1 GENE AND POLYPEPTIDES
; AND USES THEREFOR

; NUMBER OF SEQUENCES: 33

; CORRESPONDENCE ADDRESS:

; ADDRESSEE: Fish & Richardson P.C.

; STREET: 225 Franklin Street

; CITY: Boston

; STATE: MA

; COUNTRY: US

; ZIP: 02110-2804

; COMPUTER READABLE FORM:

; MEDIUM TYPE: Diskette

; COMPUTER: IBM Compatible

; OPERATING SYSTEM: DOS

; SOFTWARE: FastSEQ Version 2.0

; CURRENT APPLICATION DATA:

; APPLICATION NUMBER: US/10/096,241

; FILING DATE: 12-Mar-2002

; CLASSIFICATION: <Unknown>

; PRIOR APPLICATION DATA:

; APPLICATION NUMBER: 08/699,591

```

; FILING DATE: 19-AUG-1996
; ATTORNEY/AGENT INFORMATION:
; NAME: Fasse, J. Peter
; REGISTRATION NUMBER: 32,983
; REFERENCE/DOCKET NUMBER: 07334/022001
; TELECOMMUNICATION INFORMATION:
; TELEPHONE: 617-542-5070
; TELEFAX: 617-542-8906
; TELEX: <Unknown>
; INFORMATION FOR SEQ ID NO: 8:
; SEQUENCE CHARACTERISTICS:
; LENGTH: 469 amino acids
; TYPE: amino acid
; STRANDEDNESS: not relevant
; TOPOLOGY: linear
; MOLECULE TYPE: protein
; FRAGMENT TYPE: internal
; SEQUENCE DESCRIPTION: SEQ ID NO: 8:
US-10-096-241-8

```

```

Query Match          49.3%; Score 776; DB 14; Length 469;
Best Local Similarity 97.3%; Pred. No. 1e-55;
Matches 144; Conservative 1; Mismatches 3; Indels 0; Gaps 0;

```

```

QY      142 ATRPKLKKMKSQTGQVGEKQSLKCEAAAGNPQPSYRWFKDGKELNRSRDIRIKYGNRKN 201
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Db       31 ATRPKLKKMKSQTGQVGEKQSLKCEAAAGNPQPSYRWFKDGKELNRSRDIRIKYGNRKN 90

QY      202 SRLQFNKVKVEDAGEYVCEAENILGKDTVGRGLYVNSVSTTLSSWSGHARKCNETAKSYC 261
          ||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db       91 SRLQFNKVKVEDAGEYVCEAENILGKDTVGRGLYVNSVSTTLSSWSGHARKCNETAKSYC 150

QY      262 VNGGVCYYIEGINQLSCKCPVGYTGDRG 289
          ||||||||||||||||| |: |||
Db      151 VNGGVCYYIEGINQLSCKCPNGFFGQRC 178

```

RESULT 4

US-10-096-241-32

```

; Sequence 32, Application US/10096241
; Publication No. US20020127594A1

```

GENERAL INFORMATION:

```

; APPLICANT: Gearing, David P.
;             Busfield, Samantha J.
; TITLE OF INVENTION: DON-1 GENE AND POLYPEPTIDES
;                   AND USES THEREFOR
; NUMBER OF SEQUENCES: 33
; CORRESPONDENCE ADDRESS:
; ADDRESSEE: Fish & Richardson P.C.
; STREET: 225 Franklin Street
; CITY: Boston
; STATE: MA
; COUNTRY: US
; ZIP: 02110-2804
; COMPUTER READABLE FORM:
; MEDIUM TYPE: Diskette
; COMPUTER: IBM Compatible

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;      OPERATING SYSTEM: DOS
;      SOFTWARE: FastSEQ Version 2.0
;      CURRENT APPLICATION DATA:
;      APPLICATION NUMBER: US/10/096,241
;      FILING DATE: 12-Mar-2002
;      CLASSIFICATION: <Unknown>
;      PRIOR APPLICATION DATA:
;      APPLICATION NUMBER: 08/699,591
;      FILING DATE: 19-AUG-1996
;      ATTORNEY/AGENT INFORMATION:
;      NAME: Fasse, J. Peter
;      REGISTRATION NUMBER: 32,983
;      REFERENCE/DOCKET NUMBER: 07334/022001
;      TELECOMMUNICATION INFORMATION:
;      TELEPHONE: 617-542-5070
;      TELEFAX: 617-542-8906
;      TELEX: <Unknown>
;      INFORMATION FOR SEQ ID NO: 32:
;      SEQUENCE CHARACTERISTICS:
;      LENGTH: 647 amino acids
;      TYPE: amino acid
;      STRANDEDNESS: single
;      TOPOLOGY: linear
;      MOLECULE TYPE: protein
;      FRAGMENT TYPE: internal
;      SEQUENCE DESCRIPTION: SEQ ID NO: 32:
US-10-096-241-32

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Query Match          49.3%;  Score 776;  DB 14;  Length 647;
Best Local Similarity 97.3%;  Pred. No. 1.5e-55;
Matches 144;  Conservative 1;  Mismatches 3;  Indels 0;  Gaps 0;

```

```

Qy      142 ATRPKLKKMKSQTGQVGEKQSLKCEAAAGNPQPSYRWFKDGKELNRSRDIRIKYGNRKN 201
         ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db      31 ATRPKLKKMKSQTGQVGEKQSLKCEAAAGNPQPSYRWFKDGKELNRSRDIRIKYGNRKN 90

Qy      202 SRLQFNKVKVEDAGEYVCEAENILGKDTVGRGLYVNSVSTTLSSWSGHARKCNETAKSYC 261
         ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db      91 SRLQFNKVKVEDAGEYVCEAENILGKDTVGRGLYVNSVSTTLSSWSGHARKCNETAKSYC 150

Qy      262 VNGGVCYYIEGINQLSCKCPVGYTGDR 289
         ||||||||||||||||| : |||
Db      151 VNGGVCYYIEGINQLSCKCPNGFFGQRC 178

```

```

RESULT 5
US-10-096-241-6
; Sequence 6, Application US/10096241
; Publication No. US20020127594A1
;   GENERAL INFORMATION:
;   APPLICANT: Gearing, David P.
;               Busfield, Samantha J.
;   TITLE OF INVENTION: DON-1 GENE AND POLYPEPTIDES
;                       AND USES THEREFOR
;   NUMBER OF SEQUENCES: 33
;   CORRESPONDENCE ADDRESS:
;   ADDRESSEE: Fish & Richardson P.C.

```

```

; STREET: 225 Franklin Street
; CITY: Boston
; STATE: MA
; COUNTRY: US
; ZIP: 02110-2804
;
; COMPUTER READABLE FORM:
; MEDIUM TYPE: Diskette
; COMPUTER: IBM Compatible
; OPERATING SYSTEM: DOS
; SOFTWARE: FastSEQ Version 2.0
;
; CURRENT APPLICATION DATA:
; APPLICATION NUMBER: US/10/096,241
; FILING DATE: 12-Mar-2002
; CLASSIFICATION: <Unknown>
;
; PRIOR APPLICATION DATA:
; APPLICATION NUMBER: 08/699,591
; FILING DATE: 19-AUG-1996
;
; ATTORNEY/AGENT INFORMATION:
; NAME: Fasse, J. Peter
; REGISTRATION NUMBER: 32,983
; REFERENCE/DOCKET NUMBER: 07334/022001
;
; TELECOMMUNICATION INFORMATION:
; TELEPHONE: 617-542-5070
; TELEFAX: 617-542-8906
; TELEX: <Unknown>
;
; INFORMATION FOR SEQ ID NO: 6:
; SEQUENCE CHARACTERISTICS:
; LENGTH: 407 amino acids
; TYPE: amino acid
; STRANDEDNESS: not relevant
; TOPOLOGY: linear
; MOLECULE TYPE: protein
; FRAGMENT TYPE: internal
; SEQUENCE DESCRIPTION: SEQ ID NO: 6:
US-10-096-241-6

```

```

Query Match          46.8%; Score 736; DB 14; Length 407;
Best Local Similarity 97.1%; Pred. No. 1.7e-52;
Matches 136; Conservative 1; Mismatches 3; Indels 0; Gaps 0;

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```

Qy      150 MKSQTGQVGEKQSLKCEAAAGNPQPSYRWFKDGKELNRSRDIRIKYGNRKN SRLQFNKV 209
          ||||||||||||||||||||||||||||||||||||||||||||||||||||
Db       1 MKSQTGQVGEKQSLKCEAAAGNPQPSYRWFKDGKELNRSRDIRIKYGNRKN SRLQFNKV 60

Qy      210 KVEDAGEYVCEAENILGKDTVGRGLYVNSVSTTLSSWSGHARKCNETAKSYCVNGGVCYY 269
          ||||||||||||||||||||||||||||||||||||||||||||||||||||
Db       61 KVEDAGEYVCEAENILGKDTVGRGLYVNSVSTTLSSWSGHARKCNETAKSYCVNGGVCYY 120

Qy      270 IEGINQLSCKCPVGYTGDR 289
          ||||||||| | : | ||
Db      121 IEGINQLSCKCPNGFFGQRC 140

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```

RESULT 6
US-10-096-241-4
; Sequence 4, Application US/10096241
; Publication No. US20020127594A1

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; GENERAL INFORMATION:
;   APPLICANT: Gearing, David P.
;             Busfield, Samantha J.
;   TITLE OF INVENTION: DON-1 GENE AND POLYPEPTIDES
;                     AND USES THEREFOR
;   NUMBER OF SEQUENCES: 33
;   CORRESPONDENCE ADDRESS:
;     ADDRESSEE: Fish & Richardson P.C.
;     STREET: 225 Franklin Street
;     CITY: Boston
;     STATE: MA
;     COUNTRY: US
;     ZIP: 02110-2804
;   COMPUTER READABLE FORM:
;     MEDIUM TYPE: Diskette
;     COMPUTER: IBM Compatible
;     OPERATING SYSTEM: DOS
;     SOFTWARE: FastSEQ Version 2.0
;   CURRENT APPLICATION DATA:
;     APPLICATION NUMBER: US/10/096,241
;     FILING DATE: 12-Mar-2002
;     CLASSIFICATION: <Unknown>
;   PRIOR APPLICATION DATA:
;     APPLICATION NUMBER: 08/699,591
;     FILING DATE: 19-AUG-1996
;   ATTORNEY/AGENT INFORMATION:
;     NAME: Fasse, J. Peter
;     REGISTRATION NUMBER: 32,983
;     REFERENCE/DOCKET NUMBER: 07334/022001
;   TELECOMMUNICATION INFORMATION:
;     TELEPHONE: 617-542-5070
;     TELEFAX: 617-542-8906
;     TELEX: <Unknown>
;   INFORMATION FOR SEQ ID NO: 4:
;     SEQUENCE CHARACTERISTICS:
;       LENGTH: 181 amino acids
;       TYPE: amino acid
;       STRANDEDNESS: not relevant
;       TOPOLOGY: linear
;     MOLECULE TYPE: protein
;     FRAGMENT TYPE: internal
;     SEQUENCE DESCRIPTION: SEQ ID NO: 4:
US-10-096-241-4

```

```

Query Match          45.5%; Score 716; DB 14; Length 181;
Best Local Similarity 94.3%; Pred. No. 2.7e-51;
Matches 132; Conservative 4; Mismatches 4; Indels 0; Gaps 0;

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Qy      150 MKSQTGQVGEKQSLKCEAAAGNPQPSYRWFKD GKELNRSRDIRIKYGN GRKNSRLQFNKV 209
        |||||:|||||
Db      1 MKSQTGEVGEKQSLKCEAAAGNPQPSYRWFKD GKELNRSRDIRIKYGN VRKNSRLQFNKV 60

Qy      210 KVEDAGEYVCEAENILGKDTVGRGLYVNSVSTTLSSWSGHARKCNETAKSYCVNGGVCYY 269
        :|||||:|||||
Db      61 RVEDAGEYVCEAENILGKDTVGRGLHVNSVSTTLSSWSGHARKCNETAKSYCVNGGVCYY 120

Qy      270 IEGINQLSCKCPVGYTGDR C 289

```

||||| : | ||
Db 121 IEGINQLSCKCPNGFFGQRC 140

RESULT 7

US-10-096-241-2

; Sequence 2, Application US/10096241

; Publication No. US20020127594A1

; GENERAL INFORMATION:

; APPLICANT: Gearing, David P.

; Busfield, Samantha J.

; TITLE OF INVENTION: DON-1 GENE AND POLYPEPTIDES

; AND USES THEREFOR

; NUMBER OF SEQUENCES: 33

; CORRESPONDENCE ADDRESS:

; ADDRESSEE: Fish & Richardson P.C.

; STREET: 225 Franklin Street

; CITY: Boston

; STATE: MA

; COUNTRY: US

; ZIP: 02110-2804

; COMPUTER READABLE FORM:

; MEDIUM TYPE: Diskette

; COMPUTER: IBM Compatible

; OPERATING SYSTEM: DOS

; SOFTWARE: FastSEQ Version 2.0

; CURRENT APPLICATION DATA:

; APPLICATION NUMBER: US/10/096,241

; FILING DATE: 12-Mar-2002

; CLASSIFICATION: <Unknown>

; PRIOR APPLICATION DATA:

; APPLICATION NUMBER: 08/699,591

; FILING DATE: 19-AUG-1996

; ATTORNEY/AGENT INFORMATION:

; NAME: Fasse, J. Peter

; REGISTRATION NUMBER: 32,983

; REFERENCE/DOCKET NUMBER: 07334/022001

; TELECOMMUNICATION INFORMATION:

; TELEPHONE: 617-542-5070

; TELEFAX: 617-542-8906

; TELEX: <Unknown>

; INFORMATION FOR SEQ ID NO: 2:

; SEQUENCE CHARACTERISTICS:

; LENGTH: 605 amino acids

; TYPE: amino acid

; STRANDEDNESS: not relevant

; TOPOLOGY: linear

; MOLECULE TYPE: protein

; FRAGMENT TYPE: internal

; SEQUENCE DESCRIPTION: SEQ ID NO: 2:

US-10-096-241-2

Query Match 45.5%; Score 716; DB 14; Length 605;

Best Local Similarity 94.3%; Pred. No. 1.2e-50;

Matches 132; Conservative 4; Mismatches 4; Indels 0; Gaps 0;

Qy 150 MKSQTGQVGEKQSLKCEAAAGNPQPSYRWFKDGKELNRSRDIRIKYGNRKNRLQFNKV 209

```

          |||||:|||||
Db      1 MKSQTGEVGEKQSLKCEAAAGNPQPSYRWFKDGLNRSRDIRIKYGNVRKNSRLQFNKV 60

Qy      210 KVEDAGEYVCEAENILGKDTVGRGLYVNSVSTTLSSWSGHARKCNETAKSYCVNGGVCYY 269
          :|||||:|||||
Db      61 RVEDAGEYVCEAENILGKDTVGRGLHVNSVSTTLSSWSGHARKCNETAKSYCVNGGVCYY 120

Qy      270 IEGINQLSCKCPVGYTGDR 289
          ||||| | : | ||
Db      121 IEGINQLSCKCPNGFFGQRC 140

```

RESULT 8

US-08-736-019-170

; Sequence 170, Application US/08736019

; Publication No. US20030207799A1

; GENERAL INFORMATION:

; APPLICANT: Goodearl, Andrew

; APPLICANT: Stroobant, Paul

; APPLICANT: Minghetti, Luisa

; APPLICANT: Waterfield, Michael

; APPLICANT: Marchionni, Mark

; APPLICANT: Chen, Mario

; APPLICANT: Hiles, Ian

; TITLE OF INVENTION: GLIAL MITOGENIC FACTORS, THEIR

; TITLE OF INVENTION: PREPARATION AND USE

; NUMBER OF SEQUENCES: 189

; CORRESPONDENCE ADDRESS:

; ADDRESSEE: Clark & Elbing LLP

; STREET: 176 Federal Street

; CITY: Boston

; STATE: Massachusetts

; COUNTRY: U.S.A.

; ZIP: 02110

; COMPUTER READABLE FORM:

; MEDIUM TYPE: 3.5" Diskette, 1.44 Mb

; COMPUTER: IBM Compatible Pentium

; OPERATING SYSTEM: Windows95

; SOFTWARE: FastSeq Version 2.0

; CURRENT APPLICATION DATA:

; APPLICATION NUMBER: US/08/736,019

; FILING DATE: 22-OCT-1996

; CLASSIFICATION: 514

; PRIOR APPLICATION DATA:

; APPLICATION NUMBER: 08/471,833

; FILING DATE: 06-JUN-1995

; PRIOR APPLICATION DATA:

; APPLICATION NUMBER: 08/036,555

; FILING DATE: 24-MAR-1993

; PRIOR APPLICATION DATA:

; APPLICATION NUMBER: 07/965,173

; FILING DATE: 23-OCT-1992

; PRIOR APPLICATION DATA:

; APPLICATION NUMBER: 07/907,138

; FILING DATE: 30-JUN-1992

; PRIOR APPLICATION DATA:

; APPLICATION NUMBER: 07/940,389

```

; FILING DATE: 03-SEP-1992
; PRIOR APPLICATION DATA:
; APPLICATION NUMBER: 07/863,703
; FILING DATE: 03-APR-1992
; PRIOR APPLICATION DATA:
; APPLICATION NUMBER: UK 91 07566.3
; FILING DATE: 10-APR-1991
; ATTORNEY/AGENT INFORMATION:
; NAME: Bieker-Brady, Kristina
; REGISTRATION NUMBER: 39,109
; REFERENCE/DOCKET NUMBER: 04585/00200Q
; TELECOMMUNICATION INFORMATION:
; TELEPHONE: (617) 428-0200
; TELEFAX: (617) 428-7045
; TELEX:
; INFORMATION FOR SEQ ID NO: 170:
; SEQUENCE CHARACTERISTICS:
; LENGTH: 422
; TYPE: amino acid
; STRANDEDNESS:
; TOPOLOGY: linear
US-08-736-019-170

```

Query Match 34.6%; Score 544; DB 7; Length 422;

Best Local Similarity 35.6%; Pred. No. 1.2e-36;

Matches 127; Conservative 62; Mismatches 90; Indels 78; Gaps 13;

```

Qy      15 GVSLACYS--PSLKSVDQAYKAPVVVEGKV-----QGLV-----PAGGSSS--NSTRE 59
      | |: ||| ||: |||: | :| ||: ||| || : || : ||
Db      58 GASV-CYSSPPSVGSGVQELAQRAAVVIEGKVHPQRRQQGALDRKAAAAAGEAGAWGGDRE 116

Qy      60 PPASGRVA-----LVKVLDKWPLRSGGLQ 83
      |||:| | ||| | :|||:
Db     117 PPAAGPRALGPPAEELLANGTVPSWPTAPVPSAGEPGEEAPYLVKVHQVWAVKAGGLK 176

Qy      84 REQVISV-----GSCVPLERNQRYIFFLEP-----TEQPLVFKTAFAPLDTNGKN 128
      ::::| || |: : ||||: || : | |: :| ||:| |:|
Db     177 KDSLLTVRLGTWGHPAFPSCGRLKEDSRYIFFMEPDANSTSRAPAAFRASFPPLET-GRN 235

Qy     129 LKKEVGKILCTDCATRPKLKKMKSQTGQVGEKQSLKCEAAAGNPQPSYRWFKDGKELNRS 188
      ||||| ::|| || |:||: ||| | | |:|| :: :|||:| ||||
Db     236 LKKEVSRVLCKRCALPPQLKEMKSQESAAGSKLVLCETSSSEYSSLRFKWFKNGNELNRK 295

Qy     189 ---RDIRIKYGNRKNRSLQFNKVVEDAGEYVCEAENILGKDTVGRGLYVNSVSTTLSS 245
      ::||: | : | |: || : |:|||: | : || |: : : :| :|
Db     296 NKPQNIKIQQKPGK--SELRINKASLADSGEYMCKVISKLGNDASANITIVESNATSTS 353

Qy     246 WSG--HARKCNETAKSYCVNGGVCYIIEGINQLS---CKCPVGYTGDRCCQFAMVNF 297
      :| | || | |:||| | : :: : | ||| :||| | :| :|
Db     354 TTGTSHLVKCAEKEKTFVCVNGGECFMVKDLSNPSRYLCKCPNEFTGDRCCQNYVMASF 410

```

RESULT 9

US-09-795-668-3

; Sequence 3, Application US/09795668

; Patent No. US20020045577A1

; GENERAL INFORMATION:


```
; CURRENT FILING DATE: 2001-02-28
; PRIOR APPLICATION NUMBER: US 09/515,715
; PRIOR FILING DATE: 2000-02-28
; NUMBER OF SEQ ID NOS: 1531
; SOFTWARE: FastSEQ for Windows Version 4.0
; SEQ ID NO 3
; LENGTH: 418
; TYPE: PRT
; ORGANISM: Homo sapiens
US-09-795-686-3
```

```
Query Match          34.4%; Score 542; DB 9; Length 418;
Best Local Similarity 35.2%; Pred. No. 1.7e-36;
Matches 125; Conservative 62; Mismatches 92; Indels 76; Gaps 12;
```

```
Qy      15 GVSLACYSPSLKSVQDQAYKAPVVVEGKV-----QGLV-----PAGGSSS--NSTREPP 61
      | : | ||: |||: | :| ||: |||      || :      | | :      |||
Db      56 GASV-CSPPSVGSGVQELAQRAAVVIEGKVHPQRRQQGALDRKAAAAAGEAGAWGGDREPP 114

Qy      62 ASGRVA-----LVKVLDKWPLRSGGLQRE 85
      | : | |      |||      | : ||| : :
Db     115 AAGPRALGPPAEPELLAANGTVPSWPTAPVPSAGEPGEEAPYLVKVHVQVAVKAGGLKKD 174

Qy      86 QVISV-----GSCVPLERNQRYIFFLEP-----TEQPLVFKTAFAPLDTNGKNLK 130
      : : |      || | : : ||| : ||      : | | : : | ||| : |||
Db     175 SLLTVRLGTWGHAPFPSCGRLKEDSRYIFFMEPDANSTSRAPAAFRASFPPLET-GRNLK 233

Qy     131 KEVGKILCTDCATRPKLKKMKSQGTQGVGEKQSLKCEAAAGNPQPSYRWFKD GKELNRS-- 188
      ||| : || | | | : ||| : || | : || : : ||| : | |||
Db     234 KEVSRVLCKRCALPPRLKEMKSQESAAGSKLVLCETSSEYSSLRFKWFKNGNELNRKNK 293

Qy     189 -RDIRIKYGNRKNRSRLQFNKVKVEDAGEYVCEAENILGKDTVGRGLVNSVSTTLSSWS 247
      : : | : | : | | : | : ||| : : | | | : : : | : | :
Db     294 PQNIKIQKKPGK--SELRINKASLADSGEYMCKVISKLGNDSSANITIVESNATSTSTT 351

Qy     248 G--HARKCNETAKSYCVNGGVCYYIEGINQLS---CKCPVGYTGDRCQQFAMVNF 297
      | | || | | : : ||| | : : : : | ||| : ||| | : | : |
Db     352 GTSHLVKCAEKEKTFVCVNGGECFMVKDLSNPSRYLCKCPNEFTGDRCQNYVMASF 406
```

RESULT 11

```
US-09-946-807-3
; Sequence 3, Application US/09946807
; Patent No. US20020165144A1
; GENERAL INFORMATION:
; APPLICANT: Stefansson, Hreinn
; APPLICANT: Steinthorsdottir, Valgerdur
; APPLICANT: Gulcher, Jeffrey R.
; TITLE OF INVENTION: HUMAN SCHIZOPHRENIA GENE
; FILE REFERENCE: 2345.2004-001
; CURRENT APPLICATION NUMBER: US/09/946,807
; CURRENT FILING DATE: 2001-09-05
; PRIOR APPLICATION NUMBER: US/09/795,668
; PRIOR FILING DATE: 2001-02-28
; PRIOR APPLICATION NUMBER: US 09/515,716
; PRIOR FILING DATE: 2000-02-28
; NUMBER OF SEQ ID NOS: 1531
```



```

;      SOFTWARE: FastSEQ Version 2.0
;      CURRENT APPLICATION DATA:
;      APPLICATION NUMBER: US/10/096,241
;      FILING DATE: 12-Mar-2002
;      CLASSIFICATION: <Unknown>
;      PRIOR APPLICATION DATA:
;      APPLICATION NUMBER: 08/699,591
;      FILING DATE: 19-AUG-1996
;      ATTORNEY/AGENT INFORMATION:
;      NAME: Fasse, J. Peter
;      REGISTRATION NUMBER: 32,983
;      REFERENCE/DOCKET NUMBER: 07334/022001
;      TELECOMMUNICATION INFORMATION:
;      TELEPHONE: 617-542-5070
;      TELEFAX: 617-542-8906
;      TELEX: <Unknown>
;      INFORMATION FOR SEQ ID NO: 33:
;      SEQUENCE CHARACTERISTICS:
;      LENGTH: 139 amino acids
;      TYPE: amino acid
;      STRANDEDNESS: not relevant
;      TOPOLOGY: linear
;      MOLECULE TYPE: protein
;      SEQUENCE DESCRIPTION: SEQ ID NO: 33:
US-10-096-241-33

```

```

Query Match          32.0%;  Score 504;  DB 14;  Length 139;
Best Local Similarity 93.9%;  Pred. No. 5.7e-34;
Matches 92;  Conservative 3;  Mismatches 3;  Indels 0;  Gaps 0;

```

```

Qy      192 RIKYGNGRKN SRLQFNKVVEDAGEYVCEAENILGKDTVGRGLYVNSVSTTLSSWSGHAR 251
          |||
Db      1 RIKYGNGRKN SRLQFNKVRVEDAGEYVCEAENILGKDTVGRGLHVNSVSTTLSSWSGHAR 60
          |||

Qy      252 KCNETAKSYCVNGGVCYYIEGINQLSCKCPVGYTGDR 289
          |||
Db      61 KCNETAKSYCVNGGVCYYIEGINQLSCKCPNGFFGQRC 98
          |||

```

```

RESULT 13
US-09-795-668-4
; Sequence 4, Application US/09795668
; Patent No. US20020045577A1
; GENERAL INFORMATION:
; APPLICANT: Stefansson, Hreinn
; APPLICANT: Steinthorsdottir, Valgerdur
; APPLICANT: Gulcher, Jeffrey R.
; TITLE OF INVENTION: HUMAN SCHIZOPHRENIA GENE
; FILE REFERENCE: 2345.2004-001
; CURRENT APPLICATION NUMBER: US/09/795,668
; CURRENT FILING DATE: 2001-02-28
; PRIOR APPLICATION NUMBER: US 09/515,716
; PRIOR FILING DATE: 2000-02-28
; NUMBER OF SEQ ID NOS: 1531
; SOFTWARE: FastSEQ for Windows Version 4.0
; SEQ ID NO 4
; LENGTH: 204

```

; TYPE: PRT
; ORGANISM: Homo sapiens
US-09-795-668-4

Query Match 23.8%; Score 375; DB 9; Length 204;
Best Local Similarity 40.6%; Pred. No. 4e-23;
Matches 73; Conservative 38; Mismatches 59; Indels 10; Gaps 4;

```
Qy      126 GKNLKKEVGKILCTDCATRPKLKKMKSQTGQVGEKQSLKCEAAAGNPQPSYRWFKDGKEL 185
          |:||||| :|| | | |:|:|||| | | |:| : : :|||:| ||
Db      1 GRNLKKEVSRVLCKRCALPPRLKEMKSQESAAGSKLVLRCESSSEYSSLRFKWFKNNGNEL 60

Qy      186 NRS---RDIRIKYGNRKN SRLQFNKVKVEDAGEYVCEAENILGKDTVGRGLYVNSVSTT 242
          || :|:|: | : | | : | :|:|:|: : || |: : : : |
Db      61 NRKNKPQNIKIQQKPGK--SELRINKASLADSGEYMCKVISKLGNDASANITIVESNAT 118

Qy      243 LSSWSG--HARKCNETAKSYCVNGGVCYYIEGINQLS---CKCPVGYTGDRCCQFAMVNF 297
          :| :| | || | |:|:|||| |: : : : | ||| :|:|:| : | :|
Db      119 STTTGTSHLVKCAEKEKTFVNGGECFMVKDLSNPSRYLCKCPNEFTGDRCCQNYVMASF 178
```

RESULT 14

US-09-795-686-4

; Sequence 4, Application US/09795686
; Patent No. US20020094954A1
; GENERAL INFORMATION:
; APPLICANT: Stefansson, Hreinn
; APPLICANT: Steinthorsdottir, Valgerdur
; APPLICANT: Gulcher, Jeffrey R.
; TITLE OF INVENTION: HUMAN SCHIZOPHRENIA GENE
; FILE REFERENCE: 2345.2005-001
; CURRENT APPLICATION NUMBER: US/09/795,686
; CURRENT FILING DATE: 2001-02-28
; PRIOR APPLICATION NUMBER: US 09/515,715
; PRIOR FILING DATE: 2000-02-28
; NUMBER OF SEQ ID NOS: 1531
; SOFTWARE: FastSEQ for Windows Version 4.0
; SEQ ID NO 4
; LENGTH: 204
; TYPE: PRT
; ORGANISM: Homo sapiens
US-09-795-686-4

Query Match 23.8%; Score 375; DB 9; Length 204;
Best Local Similarity 40.6%; Pred. No. 4e-23;
Matches 73; Conservative 38; Mismatches 59; Indels 10; Gaps 4;

```
Qy      126 GKNLKKEVGKILCTDCATRPKLKKMKSQTGQVGEKQSLKCEAAAGNPQPSYRWFKDGKEL 185
          |:||||| :|| | | |:|:|||| | | |:| : : :|||:| ||
Db      1 GRNLKKEVSRVLCKRCALPPRLKEMKSQESAAGSKLVLRCESSSEYSSLRFKWFKNNGNEL 60

Qy      186 NRS---RDIRIKYGNRKN SRLQFNKVKVEDAGEYVCEAENILGKDTVGRGLYVNSVSTT 242
          || :|:|: | : | | : | :|:|:|: : || |: : : : |
Db      61 NRKNKPQNIKIQQKPGK--SELRINKASLADSGEYMCKVISKLGNDASANITIVESNAT 118

Qy      243 LSSWSG--HARKCNETAKSYCVNGGVCYYIEGINQLS---CKCPVGYTGDRCCQFAMVNF 297
          :| :| | || | |:|:|||| |: : : : | ||| :|:|:| : | :|
```

Db

119 STSTTGTSHLVKCAEKEKTFVNGGECFMVKDLSNPSRYLCKCPNEFTGDRCQNYVMASF 178

RESULT 15

US-09-946-807-4

; Sequence 4, Application US/09946807

; Patent No. US20020165144A1

; GENERAL INFORMATION:

; APPLICANT: Stefansson, Hreinn

; APPLICANT: Steinthorsdottir, Valgerdur

; APPLICANT: Gulcher, Jeffrey R.

; TITLE OF INVENTION: HUMAN SCHIZOPHRENIA GENE

; FILE REFERENCE: 2345.2004-001

; CURRENT APPLICATION NUMBER: US/09/946,807

; CURRENT FILING DATE: 2001-09-05

; PRIOR APPLICATION NUMBER: US/09/795,668

; PRIOR FILING DATE: 2001-02-28

; PRIOR APPLICATION NUMBER: US 09/515,716

; PRIOR FILING DATE: 2000-02-28

; NUMBER OF SEQ ID NOS: 1531

; SOFTWARE: FastSEQ for Windows Version 4.0

; SEQ ID NO 4

; LENGTH: 204

; TYPE: PRT

; ORGANISM: Homo sapiens

US-09-946-807-4

Query Match

23.8%; Score 375; DB 10; Length 204;

Best Local Similarity 40.6%; Pred. No. 4e-23;

Matches 73; Conservative 38; Mismatches 59; Indels 10; Gaps 4;

QY 126 GKNLKKEVGKILCTDCATRPKLKMKQSQTGQVGEKQSLKCEAAAGNPQPSYRWFKD GKEL 185
|:||||| :|| | |:|:|||| | | |:| :| :|:| | |
Db 1 GRNLKKEVSRVLCKRCALPPRLKEMKSQESAAGSKLVLCETSSEYSSLRFKWFKN GNEL 60
QY 186 NRS---RDIRIKYGNRKNRSLQFNKVVEDAGEYVCEAENILGKDTVGRGLYVNSVSTT 242
|| :|:|: |: | |: | | : |:|:|: : | | |: : : : |
Db 61 NRKNKPQNIKIQKPKGK--SELRINKASLADSGEYMCKVISKLGNDSSANITIVESNAT 118
QY 243 LSSWSG--HARKCNETAKSYCVNGGVCYYIEGINQLS---CKCPVGYTGDRCCQFAMVNF 297
:| :| | || | |:|:| | |: :| :| :|:|:| :| :|
Db 119 STSTTGTSHLVKCAEKEKTFVNGGECFMVKDLSNPSRYLCKCPNEFTGDRCQNYVMASF 178

Search completed: January 14, 2004, 07:36:04
Job time : 27.5223 secs